Practitioner development - From trained technicians to reflective practitioners: a systemic study within a United Kingdom unitary authority.

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The thesis is submitted in partial fulfilment of the requirements for the award of the degree of Doctor of Philosophy of the University of Portsmouth.

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Abstract

This thesis demonstrates how my research makes an original contribution to knowledge in the development of reflective practitioners leading to improved competence in the practice of managing projects in a workplace setting. This contribution is exciting and has the potential to generate significant debate on how best to educate project practitioners both in workplace settings and University courses.

In 2006 the Rethinking Project Management (RPM) network, a collaboration between academics and practitioners reported on their work proposing five directions for future research and practice. The fifth of these proposed a move *'…from practitioners as trained technicians towards practitioners as reflective practitioners.'* (Winter, Smith, Morris, & Cicmil, 2006, p.642). Critical to this change was a move away from technical training against an established body of knowledge or methodology (Crawford, et al, 2006, p.724) and towards an approach based in active learning and engagement. This thesis demonstrates how such an approach supports participants to develop as reflective, adaptive practitioners who are able and willing to learn on a continuing basis.

The literature review demonstrates a clear gap in knowledge, as Svejvig and Andersen (2015) found only seven published contributions discussing this topic. My review of the literature discovered 15 contributions on educating project managers, mainly practitioner development through University courses; with none mentioning the development of reflective practitioners in the workplace. My research contributes knowledge to this gap by designing a development programme which the collected data shows developed reflective practitioners. The data comes form 25 interviews of delegates on this development programme and a clear improvement in performance is indicated by business metrics.

The research was conducted in a UK unitary authority and applied a dual cycle insider action research approach. There was a business issue to dissolve and the research interests that emerged from this issue formed the dual cycle.

‘A writer may try his best to draw a map of how things are, that will be equally valid for all; but all he can do is to paint a picture of what he sees from the unique and transient viewpoint which is his alone.’
(Vickers, 1970, p. 14)

Contents

Declaration

Whilst registered as a candidate for the above degree, I have not been registered for any other research award. The results and conclusions embodied in this thesis are the work of the named candidate and have not been submitted for any other academic award.

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Abbreviations

BBC	British Broadcasting Corporation
CPM	Corporate Programme Manager
EPSRC	Engineering and Physical Sciences Research Council
LPMDP	Licensed Project Managers Development Programme
PCC	Portsmouth City Council
RPM	Rethinking Project Management
UK	United Kingdom

Glossary

Benefit	*'A quantifiable and measurable improvement resulting from an outcome which is perceived as positive by a stakeholder and which will normally have a tangible value expressed in monetary or resource terms. Benefits are realised as a result of activities undertaken to affect change'* (Office of Government Commerce).
Body of knowledge	Complete set of concepts, terms and activities that make up a professional domain.
Community of practice	In this thesis, this refers to the project management group which met quarterly throughout the timeline of this thesis.
Members	Also known as Councillors, people who are elected by the public to serve on the council and are subject to re-election every four years.
Network of practice	In this thesis, this refers to the wider network of staff interested in projects so includes senior managers.
Officers	The paid employees of a council, sometimes known as Local Government Officers.
Portfolio	One of the three elements of the model applied in the Council. This consisted of the corporate project board who approved projects and confirmed alignment with the members' strategy, the governance of projects, the structure for project execution, the approval process which included a peer review.
PRINCE2	The UK government mandated project management methodology. PRINCE2 stands for PRojects IN Controlled Environments.
Project	*'Temporary endeavours comprising activities with resource constraints for the purpose of realising benefits' (Summers, 2008, p. 5).*
Project director	The accountable person in the project aka executive or senior responsible owner.
Project management	The discipline of co-ordinating the activities required to deliver a project.
Reflective	*'Reflection is a state of mind, an ongoing constituent of practice, not a technique, or curriculum element. Reflective Practice can enable practitioners to learn from experience about themselves, their work, and the way they relate to home and work, significant others and wider society and culture.'* Bolton (2009, p.3)

Reflexive	*'This means examining our own assumptions, decisions, actions, interactions, and the assumptions underpinning organizational policies and practices and the intended and potentially unintended impact.'* Cunliffe (2016, p.741)
Solutions Focus	A model which concentrates on the solution rather than the problem, stating by defining the current situation then visualising the Future Perfect and creating an action plan to move towards this visualised state (Jackson & McKergow 2002).
Systems Thinking	The UKSS has the following definition on its web site; 'System' - a collection of elements connected to form a whole. *'A system is a whole consisting of two or more parts (1) each of which can affect the performance or properties of the whole, (2) none of which can have an independent effect on the whole, and (3) no subgroup of which can have an independent effect on the whole. In brief, then, a system is a whole that cannot be divided into independent parts or subgroups of parts.'* Ackoff (1994 p. 175) Systems Thinking holds the ideas of emergence and hierarchy, communication and control. Systems practice uses these ideas to design and manage complex processes and constructions for the benefit of individuals, organisations and society. Systems Thinking is a way of looking at the whole rather than just the parts and the interconnectedness, interrelationships and interdependencies between those parts. The parts themselves may be systems and become sub-systems of the bigger system, e.g. the braking, steering and propulsion systems within a car. Hierarchy is an important concept where the sub-systems nest inside each other and the boundary divides the system from the environment which influences it. This provides a perspective enabling events, patterns and systems to be studied to solve problems.
The Council	Portsmouth City Council.

Acknowledgements

This thesis is only possible with the support, assistance and encouragement of many people, only some of whom are mentioned here.

Firstly, I wish to express my sincere gratitude to my supervisors; Dr Christine Welch, Dr Peter Bednar, and Nick Capon all of whom in differing ways provided great assistance and support in writing this thesis. More than anything they challenged my assumptions and contributed to my learning.

Thanks, are due to my former colleagues at Portsmouth City Council for their participation and especially to Vincent Driscoll with whom I spent many an hour reflecting upon our learning.

Finally, I express my appreciation for the love and support of my family; Andrew, Catherine, Hannah, Bethany and most of all Lyn, my wife who has encouraged me and been with me throughout this thesis.

Dissemination

The following works are based on the research in this thesis.

Summers, P. (2010a). *Systems thinking in local government* Paper presented at the UKSS 14th International conference St Ann's, Oxford.

Summers, P. (2010b). *Systems thinking in local government* Paper presented at the Operational Research Society 52nd Conference Royal Holloway, London.

Summers, P. (2011a). *Benefits management: The keystone of project management,* Retrieved from http://www.apm.org.uk/news/2011-postgraduate-student-award

Summers, P. (2011b). *Reflections on a systemic approach to project management learning and development.* Paper presented at the UKSS 15th International conference 2011, St Ann's College, Oxford.

Summers, P. (2011c). *A systemic approach to improving performance* Paper presented at the Research & Knowledge Transfer conference, University of Portsmouth.

Summers, P. (2011d). *A systemic approach to improving project management performance.* Paper presented at the 55th International Society for the Systems Sciences, University of Hull.

Summers, P. (2011e). Systems thinking in local government. *Systemist,* 33(2 & 3), 88 - 111.

Summers, P. (2012). *Knowers rule OK?* Paper presented at the UKSS 16th International conference, St. Ann's, Oxford.

Summers, P. (2013). *Project education: a new paradigm.* Paper presented at the UFHRD 2013, Brighton.

Summers, P. (2015a). *98.8%! Is project failure acceptable and inevitable?* Paper presented at the IRNOP 2015, UCL, Bartlett school of Building. http://ssudl.solent.ac.uk/3269/1/INROP.pdf

Summers, P. (2015b). *Planning to fail? A critique of current project definitions as a basis for benefit realisation.* Paper presented at the BAM, University of Portsmouth.

Summers, P. (2016a). *Flawed project definitions: How your projects fail to deliver value.* Paper presented at the Operational Research Society 58th Conference, University of Portsmouth.

Summers, P. (2016b). *A Systems Thinking approach to improving project performance* Paper presented at the Operational Research Society 58th Conference, University of Portsmouth.

Summers, P. (2016). *Getting value from your projects the Solent way.* Paper presented at the Operational Research Society 58th Conference, University of Portsmouth.

Summers, P. (2017). *Active learning: how to educate 21st century employees.* Paper presented at the BAM, Warwick University.

Welch, C. and Summers, P. (2018). Explore, experiment, experience: A synthesis of Vickers' appreciative learning system and Ackoff's problem approach applied in practice, Chapter in G. Bell, R. Pagano and J. Warwick (Editors), *Problem Structuring Approaches and Management for Projects: Demonstrating Successful Practice.* London: Palgrave Macmillan (forthcoming).

Practitioner development - From trained technicians to reflective practitioners: a systemic study within a United Kingdom unitary authority.

Chapter 1 Introduction

This Chapter will introduce the purpose of this thesis and explain its structure, as shown in Figure 1.1. Throughout the thesis each chapter will feature a mind map displaying the outline and key topics of that chapter.

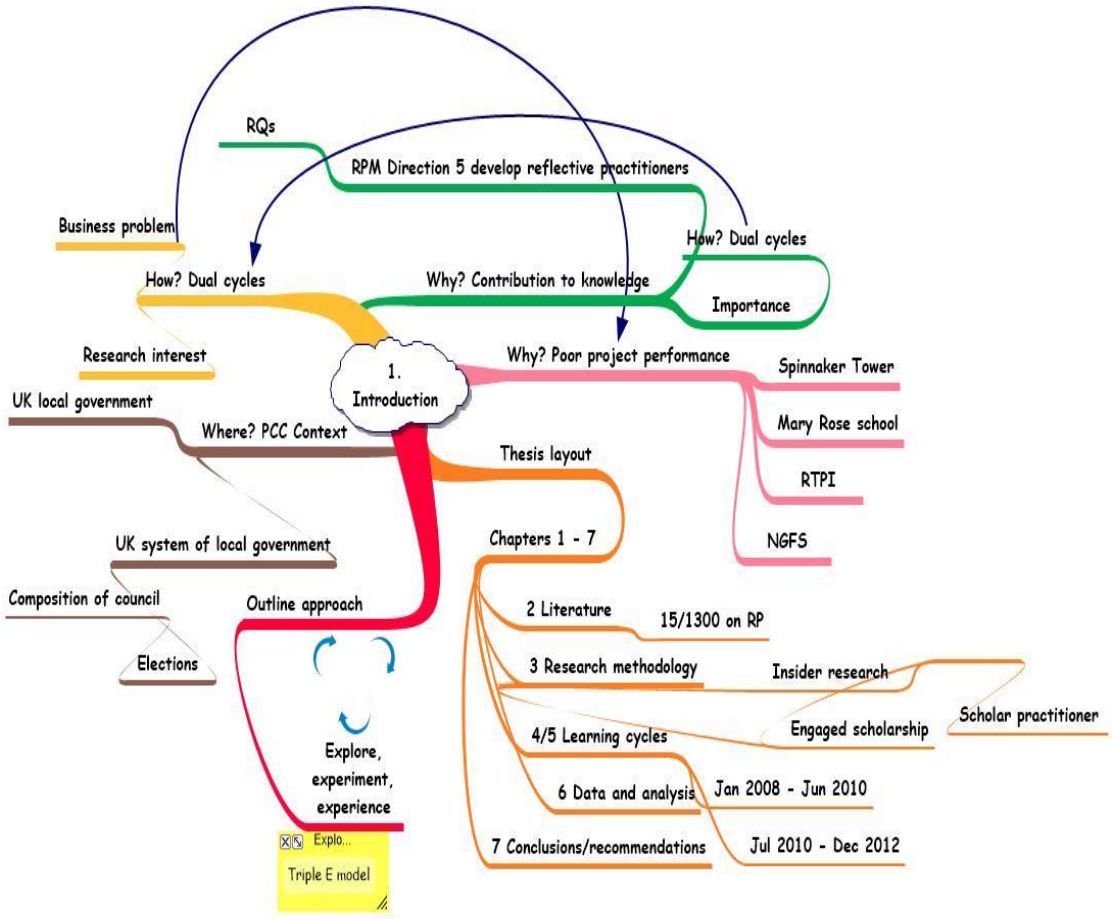


Figure 1.1 Outline of Chapter 1. (Author's work with Inspiration ®)

1.1 Overview

This chapter introduces the combined research and problem-solving question of how to improve project performance in Portsmouth City Council, a United Kingdom (UK) unitary authority. In this chapter, I will state the contribution to knowledge from this research project, the research questions, the background to the problem in project performance, a description of the structure of the council and context within the UK government system and an overview of the chapters which follow. Figure 1.1 shows the layout of the chapter with a graphical depiction of the main topics.

In this work, there was a business issue to explore and attempt to dissolve (Ackoff, 1981, 1994); with the Council's project performance judged as poor by the Audit Commission in 2003 as a direct consequence of the problems in the construction of the Spinnaker Tower. Like many organisations Portsmouth City Council uses projects to deliver and improve services and with the added constraint of being financed by the public purse, the ability to spend wisely and not squander money is closely related to the perception of competence. This thesis shows the research interests which derived from the approach to dissolving the issue of poor project performance. Although several research interests presented I focussed on the development of reflective practitioners within the workplace. My review of literature showed a gap in this area and additionally, I believed that education is key to improving performance. This led me to direction 5 of the Rethinking Project Management (RPM) network as a topic for research as this direction proposes a move from *'practitioners as trained technicians towards practitioners as reflective practitioners.'* (Crawford, Morris, Thomas, & Winter, 2006; Winter, Smith, Morris, & Cicmil, 2006)

The research used a dual cycle (McKay & Marshall, 2001, p. 46); interlinking problem-solving a business issue with researching the approach and outcomes

using a combination of insider action research and engaged scholarship over a period of six years. Both the research and problem-solving activities were conducted by myself as a scholar-practitioner (McLintock, 2004) and this thesis is written in the first person as Fisher and Phelps (2006, p. 143) suggest is appropriate to action research and practitioner-based studies.

Winter and Smith (2006, p. 13) recommend using 'soft' Systems Thinking and system dynamics approach to enrich project management research, and this research project used Systems Thinking throughout the dual cycles. Chapter 2 provides a review of Systems Thinking including a definition by Ackoff and the main approach I applied. In applying Systems Thinking concepts I gained a greater appreciation of commissioning and executing projects particularly by viewing projects from the commissioner's and customer's perspective rather than that of the project manager. This changed '*Weltanschauung'* (Checkland, 1999, pp. 14, 319) and *'appreciative settings'* (Vickers, 1963, p. 285; 1968b, p. 159), led to a changed focus of projects having the purpose of creating value for the organisation, which aligns with Direction 3 as shown in Table 2.1. The emphasis within this thesis however is on Direction 5 as stated above.

1.2 Contribution to knowledge

In 2006 the Engineering and Physical Sciences Research Council (EPSRC) funded the Rethinking Project Management (RPM) Network (Winter & Smith, 2006; Winter, Smith, et al., 2006), a network of senior practitioners and leading researchers which proposed five directions for future research in project management. In looking for an approach to dissolve the issue of poor project performance within the Council the 'towards' elements proposed by the network were applied. The focus of this thesis is on direction 5, practitioner development (Crawford et al., 2006), which will be covered in greater detail in later chapters. Thus, this thesis' contribution to knowledge derives from reflection upon

direction 5 *'From practitioners as trained technicians towards practitioners as reflective practitioners'.* The thesis will show how such a transformation was brought about in action through a staff development programme in which the 'Triple E' model was applied (see Figure 1.8). This Licenced Project Manager's Development Programme (LPMDP) went through three iterations at PCC between 2009 and 2012 and was the subject of action research, from which the contribution is drawn. Svejvig and Andersen (2015) found only seven published contributions discussing this direction and as will be shown in Chapter 2 my review of the literature discovered only 15 contributions on educating project managers, mainly University courses; with no contribution on developing reflective practitioners in the workplace. This thesis contributes knowledge to this gap highlighting how to develop reflective practitioners by moving education approaches from training and examining against a body of knowledge or methodology (Crawford et al., 2006, p. 724) onto active learning which produces adaptable practitioners who are continuously learning in a workplace setting. This contribution to knowledge arises from the active learning based development programme which the collected data demonstrates produced staff who gained the confidence to challenge assumptions, both theirs and others, demonstrating development towards reflective and reflexive practitioners. According to Bolton (2009, p.3) *'Reflection is a state of mind, an ongoing constituent of practice, not a technique, or curriculum element. Reflective Practice can enable practitioners to learn from experience about themselves, their work, and the way they relate to home and work, significant others and wider society and culture.'* However, Cunliffe (2016, p.741) proposes a need to become reflexive rather than just reflective stating *'This means examining our own assumptions, decisions, actions, interactions, and the assumptions underpinning organizational policies and practices and the intended and potentially unintended impact.'* These concepts are explored further in section 2.4.3 page 79. Therefore, this work formed a foundation for development of theory in practice, as defined by Winter et al (2006) per Table 2.1.

The thesis I am proposing is that by applying active learning with spaced reflection on activities to practitioner development, reflective and reflexive practitioners will be developed leading to improved project performance. This approach will move project staff from trained technicians to reflective practitioners (Winter & Smith, 2006; Winter, Smith, et al., 2006) who are adaptable and able to respond to the changing circumstances encountered during the life of projects.

In attempting to dissolve the issue of poor project performance in the Council I implemented an alternative approach to project delivery with a stress on achieving business results with a complementary educational programme designed to assist staff gain a mastery of the subject and an understanding of the purpose of projects. A model incorporating three elements, portfolio, education and a network of practice, with an emphasis on delivering business results was designed and tested and this research project focusses on the education and network of practice and the results obtained.

In conducting this research project, I posed the following questions which form the contribution to knowledge:

> *1. Would a development programme based on active learning develop reflective practitioners?*
> *2. What impact would such a development programme have on the delegates of such a programme?*

Question 1 will be answered by analysis of reflective reports and interviews of some delegates; the second question explores the delegates' experience and perceived impact following attendance on the programme.

1.3 Layout of thesis

There will be seven chapters in total (see Figures 1.2 and 1.3 for a graphical representation of the structure). The first chapter sets out the contribution to knowledge from this work, the research questions, the context in which the research took place, the organisation and its position in the UK system of government and the problem to be dissolved. This chapter also introduces the Triple E model of explore-experiment-experience, based on Vickers' (1968) appreciation, Ackoff's (1981) problem solving and Bateson's (1972) spiral of learning, which was applied throughout the dual cycle of problem solving and research interest.

Chapter 2 comprises a literature review of the disciplines of project management, practitioner development and Systems Thinking. The focus will be on the Rethinking Project Management network (Winter, et.al. 2006) findings and this chapter will highlight the gap in the project management literature of developing reflective and reflexive practitioners, in the workplace especially, showing the importance of the contribution to knowledge that this thesis makes. This chapter will propose that projects are systems and therefore systems theory will apply, and this provides a different perspective on projects and their management to that of the Project Management Associations such as the Project Management Institute and Association for Project Management. There is a paucity of contributions within the project management discipline, so I have drawn on the disciplines of nursing and teaching to provide literature on the application of active learning to develop reflective practitioners. Kember et al., (2000) and Crawford et al., (2006) provide instruments for assessing my results in developing reflective practitioners.

The research approach will be described in detail in Chapter 3, with an explanation of the rationale. This chapter will discuss my role spanning the

academic and practitioner domains McLintock, (2004); Van Til, (2000); and Salipante & Aram, (2003, p. 130) and how engaged scholarship (Van de Ven, 2007) and insider research (Coghlan, 2007) were combined to design the action research methodology utilised in conducting this research. This chapter shows the approach taken to collect evidence supporting the contribution to knowledge.

Chapter 4 covers the first learning cycles exploring the application of Systems Thinking to the business issue of poor project performance, synthesising the work of Ackoff, Bateson and Vickers. Vickers (1968) idea of appreciative systems was used to gain an understanding of the problem and a way to dissolve it (Ackoff, 1981). A model was constructed and introduced into the organisation, the results observed and reflected upon before being iterated. The problem faced by the Council will be explored and a broad conceptualisation of project failure and causes of project disappointment will be considered. Also, discussed will be the application of engaged scholarship. This chapter covers the initial period from November 2007 to June 2010 and focusses on the model design, application of the portfolio and community of practice elements and the first iteration of the LPMDP, leading to the contribution to knowledge, the development of reflective practitioners.

Chapter 5 discusses further learning cycles investigating the model in practice and its evolution over time. This chapter also shows how reflective and reflexive practice was introduced into the staff development activities for the Council's project practitioners. These cycles cover the period July 2010 to December 2012 and focus mainly on the practitioner development activities, leading to the contribution to knowledge.

Chapter 6 will present the results describing how they were obtained and interpreting whether they helped improve project performance within the

Council. These findings will be compared with Crawford et al. (2006, pp. 724 - 725) challenges and implications. There will be a further assessment of the findings against the Kember et al. (2000, p. 395) questionnaire as a measure of reflectiveness. This will confirm the approach to developing reflective practitioners was successful. In this chapter, there will be a comparison with the approaches used to improve performance in contract management and performance management, both of which were also considered poor by the Audit Commission.

The concluding chapter will state the contribution to knowledge, answers to the research questions and avenues for further research will be explored. Figure 1.2 shows the layout emphasising the dual cycle nature of the work.

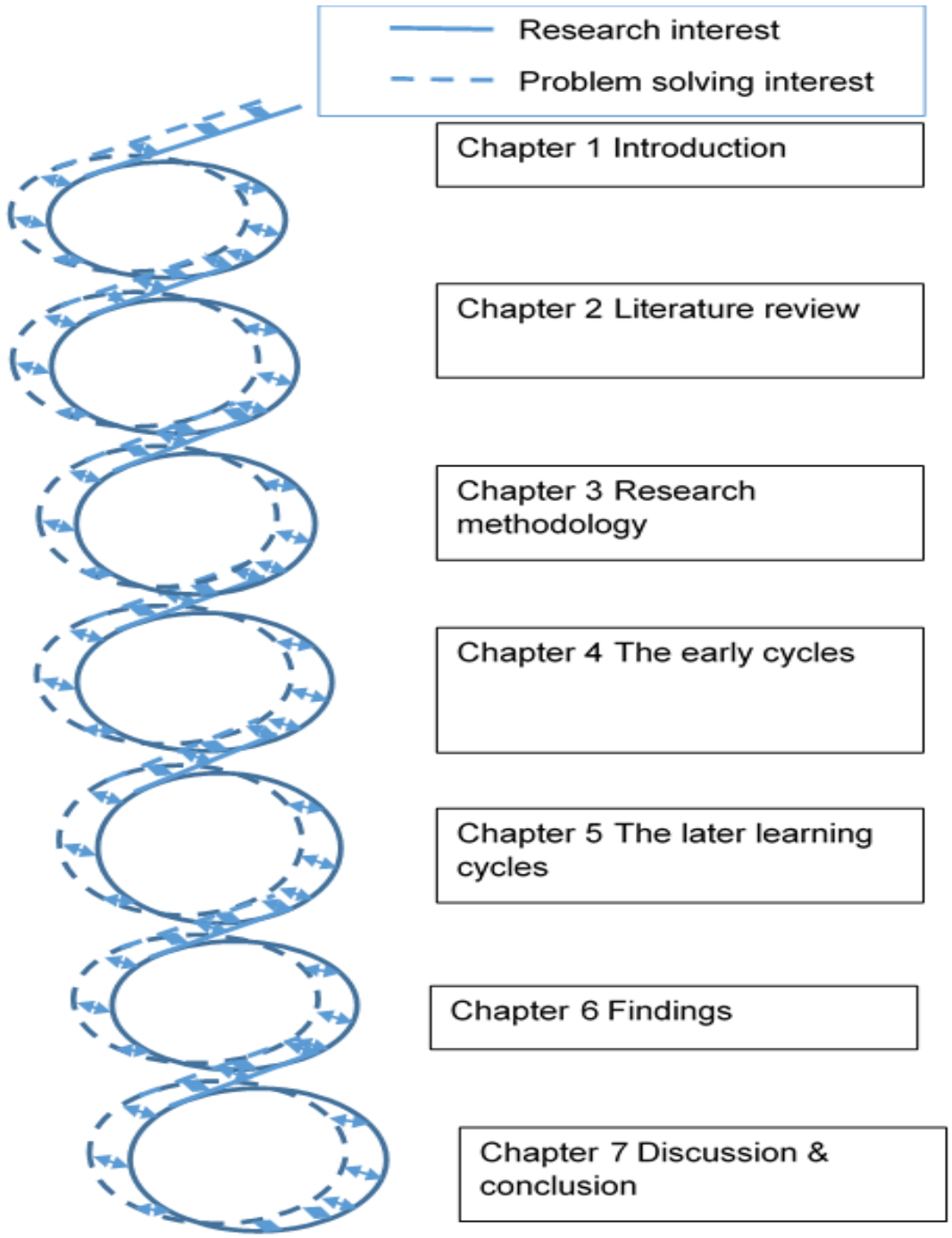


Figure 1.2 Layout of thesis. (Adapted from McKay & Marshall, 2001, p. 52).

Figure 1.3 below shows the chapters and topics in a mind map with greater detail than Figure 1.2.

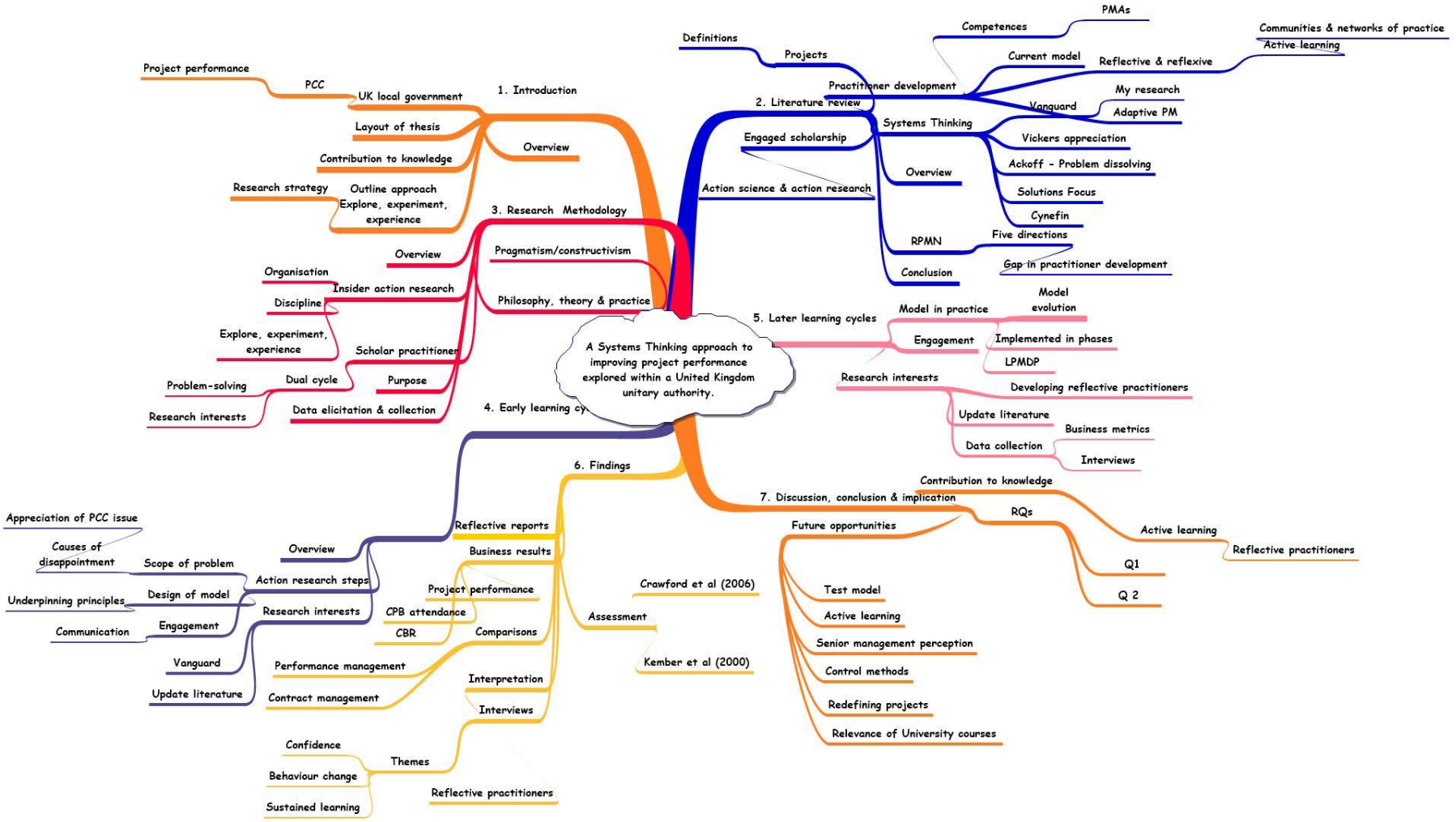


Figure 1.3 Chapters and topics mapped. (Author's work with Inspiration ®)

1.4 United Kingdom local government structure

The UK has a system of central government and local government whereby central government sets national policy and local government is responsible for day-to-day services and local matters. Local authorities have tax raising powers and receive grants and redistributed business rates from central government – a mechanism that allows the central government control over local government (Directgov, 2012a).

Local government is split into a mixture of one-tier and two-tier systems throughout the UK. In most of England there is a two-tier system consisting of county and district councils. The counties provide most services such as education, social services and transportation with the districts responsible for local housing, leisure centres, local planning and waste collection. Cities and smaller counties operate a one-tier system responsible for all public services and are known as unitary authorities. These are usually called metropolitan district councils, city councils, county councils or borough councils. (Directgov, 2012b)

All councils are split into wards and elections are held to elect ward councillors who represent their electorate. In Portsmouth the turnout for the 2014 local elections was about 36% compared with 66.1% for the general election in 2015 (BBC, 2015). Given that it is possible to win a seat on the council with 25 – 30% of the votes cast, ward councillors may attract less than 12% of the support of the electorate they represent.

1.5 The organisation

The organisation in which this research was carried out is Portsmouth City Council; a UK unitary local authority which has responsibility for education,

social services, leisure, culture, Town and Country Planning, Environmental Health, Trading Standards, waste collection, housing, traffic and street management, collection of council tax and non-domestic rates, civil contingencies and network safety within its boundary. There are 2000 staff employed in the Civic Offices with a further 4000+ off site; mainly education and social service staff.

Portsmouth is unique in the UK in being an island city; it is situated on the south coast of England. Although having a rich naval heritage and being known as the home of the Royal Navy, it was formerly a garrison town and to this day, the Army holds the keys to the city. The population is about 207,100 within an area of 40 square kilometres (Portsmouth City Council, 2012a).

This broad responsibility means that the Council undertakes projects involving different disciplines either discretely or more usually in combination e.g. change initiatives, information technology, construction, civil engineering and traffic engineering. In the next section and Appendix A four projects will be considered and these have been chosen as being typical and representative of project performance and show the rationale for the need to improve performance.

The Council is divided into 14 wards each represented by 3 elected councillors providing a total of 42 representing the electorate of the city. In common with the UK's general election system it operates on a first past the post basis. For three years one councillor position in each ward is subject to election with no elections due in the fourth year. This means each councillor is elected to serve a period of four years and that the administration for three out of four years is in election mode potentially leading to short term decisions driven by the desire to retain power. Table 1.1 shows the political composition of the council from 1995 to 2013, the final year covered by this research.

Year	Conservative	Liberal Democrat	Labour	Others	Total
2013	12	25	5	0	42
2012	12	26	4	0	42
2011	17	23	2	0	42
2010	16	24	2	0	42
2009	17	23	2	0	42
2008	15	20	3	4	42
2007	17	19	5	1	42
2006	16	19	5	2	42
2005	14	21	7	0	42
2004	14	20	7	1	42
2003	15	16	11	0	42
2002	15	12	14	1	42
2000	16	8	15	0	39
1999	10	9	20	0	39
1998	8	10	21	0	39
1996	6	12	21	0	39
1995	10	9	20	0	39

Table 1.1 Political composition of Portsmouth City Council 1995 – 2013. (Adapted from Portsmouth City Council, 2012b)

The internal structure of the council was changed in 2004 from having a Chief Executive and 17 Chief Officers running various departments e.g. Planning Service, Engineering and Design Service, Housing as well as others to a structure with a Chief Executive and five Strategic Directors forming the Strategic Directors board with Heads of Service managing operationally. The latter structure was in place when this research project commenced and aside from a reduction in numbers was in place on completion. There was also a schism between the front-line services i.e. those dealing with the public direct and the support services such as legal, finance, Human resources and Information services with the front-line services often feeling that the support services were putting blocks and barriers in their way. Some managers made derogatory reference to the *'third floor'* where the strategic directors had their offices and one head of service on more than one occasion said to me *'we forgive the sinner not the sin.'*

In 2004, I conducted a survey of 30 staff using a questionnaire based on Handy (1993, pp. 210-216) which assessed the prevailing culture of the council. This survey took a small sample of staff who were known to me through work contact or from course attendance albeit not socially and all the participants scored the council as a 'Role culture' either first or second choice. Handy (1993, pp. 185-186) uses a picture of a Greek temple as the structure representing a role culture, *'…the role organisation rests its strength in its pillars, its functions or specialties.'* This is shown in Figure 1.4 below;

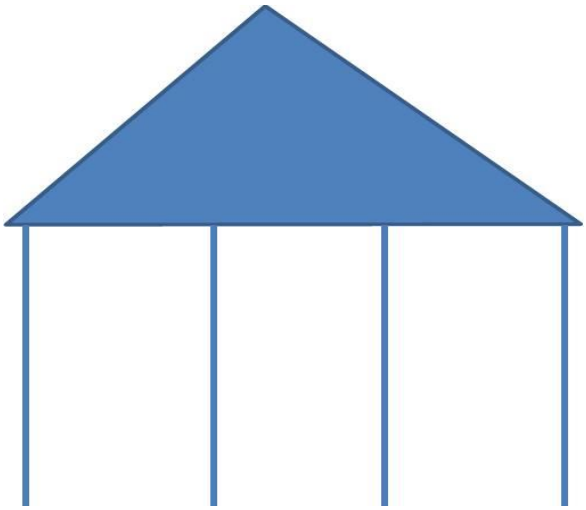


Figure 1.4 Greek temple representing the 'Role culture.' (adapted from Handy, 1993, p. 185)

He also states that *'The role culture is often stereotyped as bureaucracy,'* (Handy, 1993, p. 185). Figure 1.5 shows the organisational structure of the Council and how it looks like a 'Greek temple' as depicted in Figure 1.4 above.

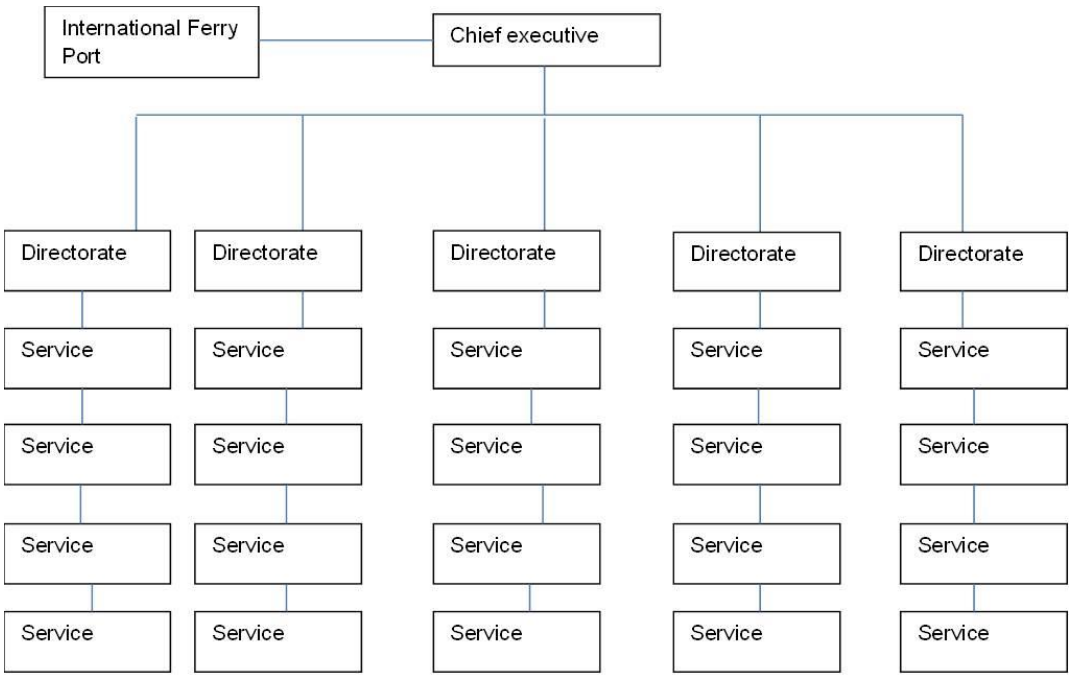


Figure 1.5 Portsmouth City Council structure. (Author's work)

The structure draws boundaries around the directorates and services which often are narrow and thus also encourages silo working with its emphasis on compartmentalisation and segmentation, which leads to *'…actions, events and problems…isolated from the others'* (Kanter, 1984). Silo working can lead to a silo mentality; thinking only in and about a very narrow defined area or task with no regard or consideration of other tasks or components or how they may interconnect and impact upon each other. This evidenced itself in various ways; e.g. business planning done in isolation to financial planning, projects initiated with no regard to other projects in the organisation or consideration of corporate strategy and policies. The services and teams within the services would have little contact with other areas and many staff thought of themselves as working for their service rather than Portsmouth City Council. Figure 1.6 shows the structure for an individual service that displays the segmentation that permeated throughout the whole organisation.

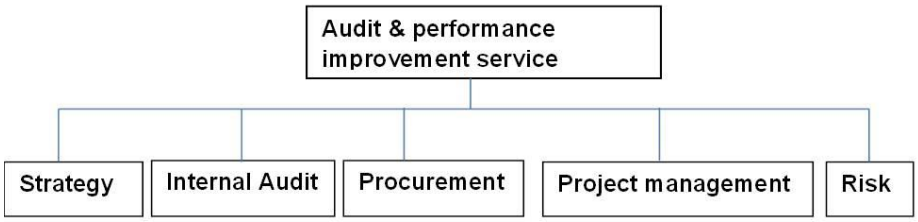


Figure 1.6 Structure of Audit & performance improvement service. (Author's work)

1.6 Background to project performance

The early years of the new millennium saw several of the council's high-profile projects fail to deliver to time, budget, or requirements. The council faced criticism both informed and uninformed and from within as well as without. For example, the local newspaper frequently ran critical articles detailing project failure and multiple correspondents in the letters page were quick to join in often with little knowledge of the facts. An introduction to four of the biggest projects and the issues are described below with a more detailed description being in Appendix A.

The Council in 1995 successfully bid for funds from the Millennium Commission to construct a tower as part of the renaissance of Portsmouth Harbour. This construction was to be called the Portsmouth Millennium Tower and was due to be completed before 31 December 1999 to celebrate the new millennium, however opening was delayed until October 2005 and was by then renamed Spinnaker Tower; it was also some £16M overspent and was subject to independent review by the Audit Commission and internal review by the councillors (BBC, 2005).

The Council was criticised by the District Auditor in the report (Childs, 2004) produced following the Audit Commission's review. This report strongly

criticised the arrangements for project management, performance management and contract management in place in the council. Due to this the Audit Commission undertook annual reviews to determine the status of project management, performance management and contract management within the Council. In section 6.3 I will compare the approach to contract management and performance management and the results with those achieved by my approach. Following this review, the then Leader of the Council, a councillor, resigned and the City Solicitor retired following a period of suspension as a direct consequence of the perceived failure (BBC, 2005). Table 1.1 also shows the impact on the ruling party as a further consequence of the council's travails with the Spinnaker Tower; control moved from Labour in 1995 to the Liberal Democrats in 2003.

Another high-profile project to struggle was the construction of a special needs school named Mary Rose School; now known as Mary Rose Academy. This project started in 2004/5 and the school was handed over in 2007 having suffered a delay of about six months due to *'design and construction issues'* (Mary Rose Academy, 2014).

The main criticism was by the members who accused the officers of not informing them of a delay to the works for six months. This project was subject to the project management arrangements introduced following the Childs report into the Spinnaker Tower project. These required a project review board to monitor project progress and that the project manager be a certificated PRINCE2 practitioner. This requirement followed the UK Government mandate for the use of PRINCE (which stands for PRojects IN Controlled Environments) for central government projects and was first developed by the UK Government in 1989 as a standard approach to Information Technology project management for central government. This methodology became PRINCE2 in 1996 and has had a number refreshes, the latest being in 2017.

Concurrent with these projects during 2002 – 7 although not in the public domain until 2009 was a project to implement a Real-Time Passenger Information system. This system was never fully implemented and was turned off in 2006, although It was hoped to implement a Real-Time Passenger Information system later (Moon, 2007). The costs of this project were some £6M over budget. The Real-Time Passenger Information system was to utilise new technology and no discussions were held between the project owning service and the Information Technology Service leading to the procurement of software incompatible with the existing council infrastructure. A report produced in 2008 by the Council's Chief Internal Auditor (Graham, 2008) clearly showed the same failings present as the Spinnaker Tower and Mary Rose School. This despite two interventions designed to improve project performance.

I will outline one further project which struggled during this period which was a project to implement a new financial system to replace the system which was mainframe based and owned by Hampshire County Council. This project was known as the Next Generation Finance System and overran on both budget and time. It also caused the Authority to fail its legal obligation to submit school accounts on time. At one stage, all 120 staff in the IT Service were working on this project. The new system has never been fully implemented and the finance staff continued with their own design spreadsheets. This also meant that potentially valuable management data was not available following the implementation, with managers forced to rely on finance staff to monitor their budgets.

These and other project failures led to two interventions being undertaken; in 2003 and 2006 without any lasting improvement in the council's project performance. Following these interventions, the council procured the services of KPMG as management consultants to review the projects and advise on means of improving performance; their report was delivered in June 2007. Appendix A provides more information on these four projects showing a pattern of failure

due to poor or non-existent stakeholder engagement, poor risk management, poor procurement evidenced by contracts that were detrimental to the council amongst other reasons.

1.7 Outline approach

In conducting this project, I applied a multi-disciplinary approach drawing on Systems Thinking, staff development practice, and project management utilising insider action research in a dual cycle as the main research methodology. Figure 1.7 shows the interaction of the three disciplines.

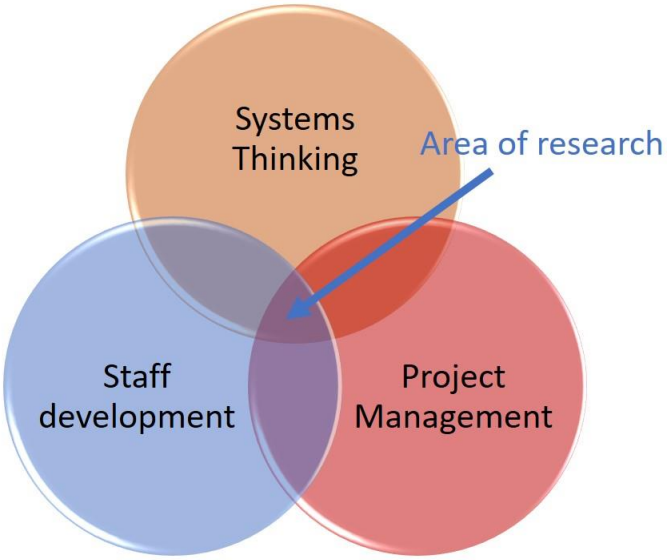


Figure 1.7 Diagram showing main area of research. (Author's work)

To test the research questions, I synthesised Systems Thinking and a learning approach with project management to improve project performance. This led to the creation of a model that was tested in the Council. A significant element of this model involved the design of a learning programme based on ideas from active learning; utilising a no training approach with the intention of changing the existing training paradigm which produces trained technicians into one

which produces reflective practitioners (Crawford et al., 2006; Winter & Smith, 2006; Winter et al., 2006), and thus continuous learners who are adaptable in delivering projects.

The thesis will explore the design and implementation of a model with the aim of improving project performance within the Council. The model had three underpinning concepts. Firstly, it was based on an educational approach rather than the process compliance and enforcement approach previously applied when attempting to improve project performance. Secondly the model is intended to move the focus from an output delivered to specified cost and time constraints onto achieving strategic objectives and value for the organisation. Thirdly, Vickers' (1983) '*appreciative system of learning'* synthesised with Ackoff's (1981, 1994) problem-solving concept and Bateson's (1972) spiral of learning were the key Systems Thinking influences throughout the dual cycle of activities.

This tripartite approach was applied using the iterative explore-experiment-experience, the Triple E model, as shown in Figure 1.8 below. This iterative approach was applied to the research method, the problem-solving activity and in the development programme introduced for project staff. Exploring took the form of enquiry and discussing concepts with stakeholders; drawing on my 35 years' experience in the workplace. This enabled me to gain an appreciation of projects and the expectations of stakeholders. Experimentation was about floating ideas, assessing responses and testing them in practice and finally the experiences of myself and other stakeholders were collated and the spiral iterated (Nissen, Bednar, & Welch, 2007, p. 1). This approach will be expanded upon in the following chapters.

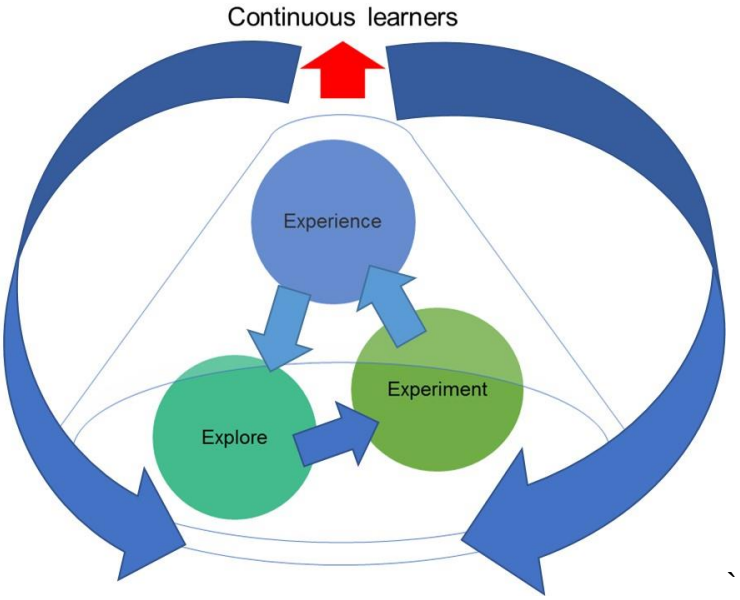


Figure 1.8 The Triple E model of explore-experiment-experience. (Author's work)

The Council had a record of poor project performance and the model proposed was designed to dissolve this problem (Ackoff, 1981, 1994). The model was tested within this organisation and led to improvement in project performance that is clearly evidenced in Chapter 6.

During this work, I have made several conference presentations, to both academic and practitioner audiences (peer-reviewed and non-peer-reviewed). This provided valuable feedback and external validation of the research approach taken. The model was designed after gaining an appreciation of the state of project performance within the Council and a review of the practice in other organisations investigating their approach to the management of projects. This involved an engaged scholarship approach (Van de Ven 2007) in constructing the dual cycle used and described in this thesis.

This is an insider action research project where I was an active participant designing and implementing the model as well as designing and facilitating the development workshops in my work role within the Council. I consulted with many people both inside and outside the organisation, reflected on these discussions and the events as they unfolded throughout my intervention. My interpretations of these discussions and observations informed the continued development of the overall model, a flux of events and ideas (Checkland & Holwell, 1998). The data was collected through interviews and reflective reports of the participants of the LPMDP and business metrics of project performance in the Council.

This research project has a strong practice element; there was a problem to address; poor project performance, and I applied Systems Thinking to design a model intended to improve project performance. This model was implemented in the Council and refined over time as more information became available following Vickers' appreciation; information, valuation, action in a continuous spiral (Vickers, 1983). A significant element in attempting to dissolve the issue was the educational element designed to develop reflective practitioners.

1.7.1 Research strategy

The design of the methodology is covered in detail in Chapter 3 and follows the pragmatism and interpretivism paradigms utilising a combination of induction/deduction/abduction in a dual cycle action research methodology. McKay and Marshall (2001) propose a dual cycle with interlinked cycles of problem-solving interest and research interest. Figure 1.8 shows this graphically and Table 4.1 textually.

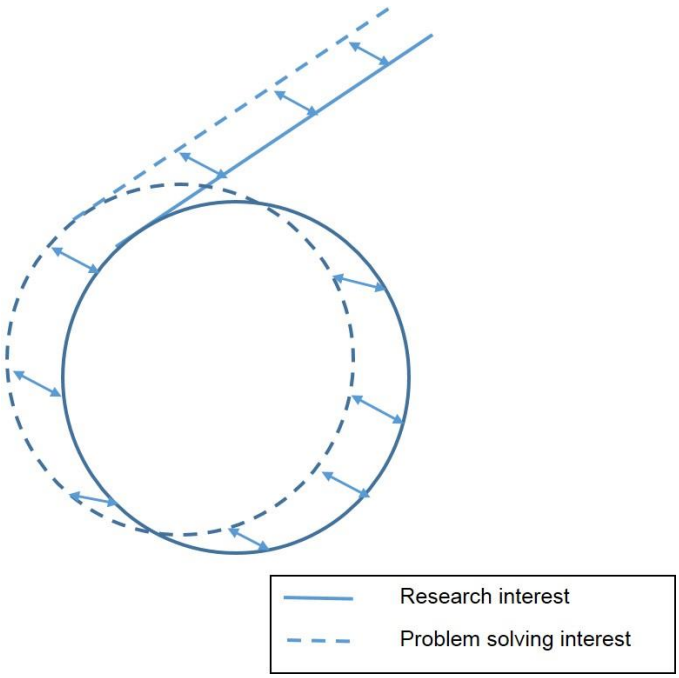


Figure 1.9 Dual cycle action research. (Adapted from McKay & Marshall, 2001, p. 52)

The research will be interpretive and subjective being based largely on interviews and observations and I am a participant in the activities. I need to be aware of my influence as I will be a participant in the learning and development programme as a facilitator and will be working within the boundary of the framework; this is a position which Checkland (1999); and Stowell (2009, p.889) argue is best for soft systems research.

This chapter has given an overview of the research problem and the context in which the research was conducted. Project performance was a major issue within the Council with a range of different causes including incomplete understanding of the requirements of project delivery, poor planning, non-existent benefits management, a belief that a communications plan was good stakeholder engagement, poor risk management and high levels of distrust between the elected members and paid officers. As I investigated further it became clear that the problems were much deeper and that the application of

Systems Thinking was a way of dissolving the problem. This investigation into causes and potential remedies formed the first stage of the research project and led to the design of a model that I felt would improve project performance. This model was introduced into the Council and over a series of iterations; data was collected leading to the conclusion that the model was successful in this organisation. Chapter 3 details the research design and the reasoning behind the method chosen.

Chapter 2 Literature review

In this Chapter, I discuss the literature in the fields of Systems Thinking, staff development practice, and project management and the ways in which it informed my study (see Figure 2.1).

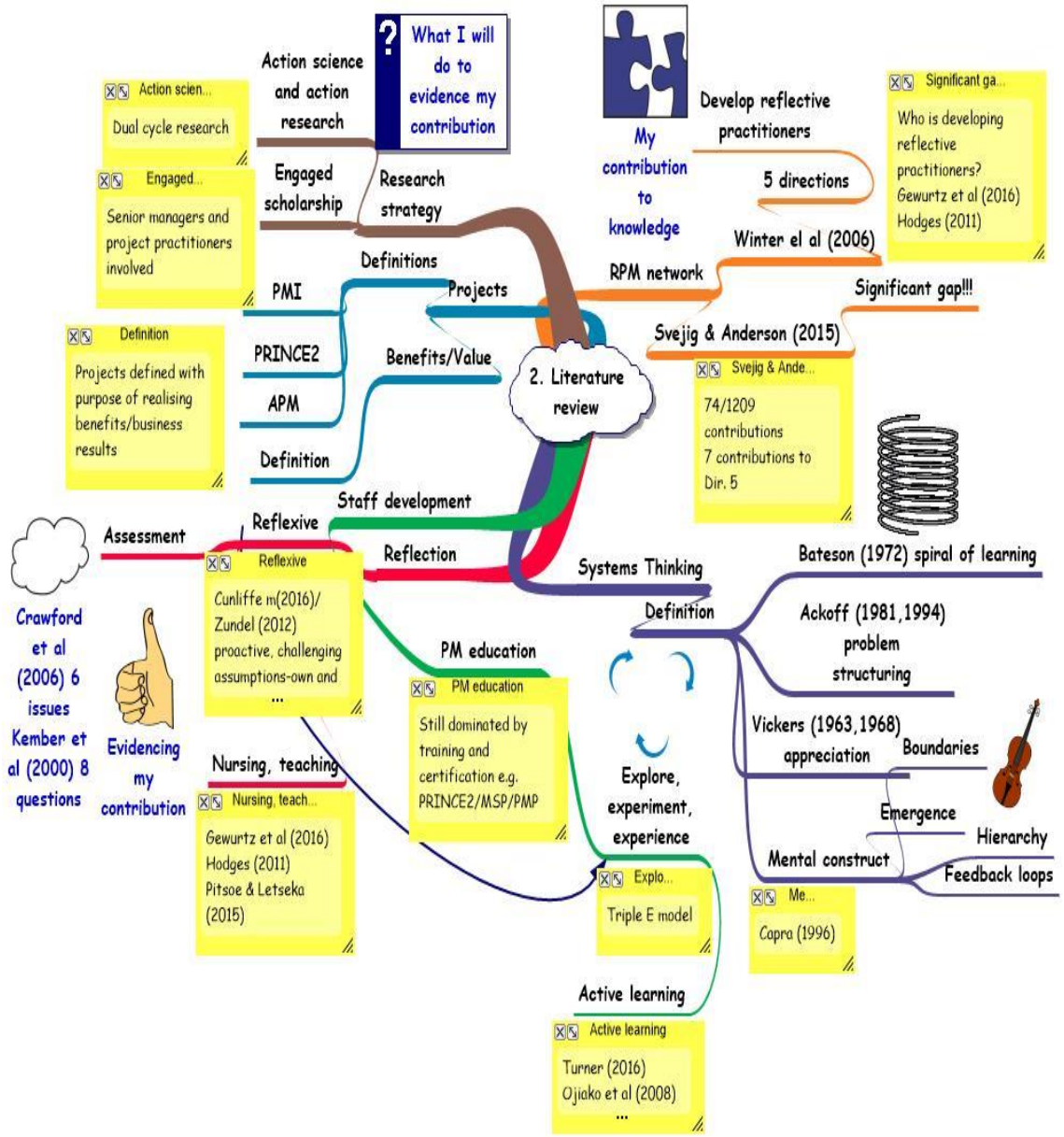


Figure 2.1 Outline of Chapter 2. (Author's work with Inspiration ®)

2.1 Overview

This work commenced in late 2007, one year following the publication of the Engineering and Physical Sciences Research Council (EPSRC) funded Rethinking Project Management (RPM) Network report which proposed five directions for project management theory and practice (Winter & Smith, 2006; Winter, Smith, et al., 2006), these are shown in Table 2.1 and discussed in the following sub-sections. In exploring means of improving project performance in the Council these directions were examined. The model I designed was based on directions 3, 4 and 5 however the contribution to knowledge in this thesis is concerned with developing reflective practitioners – direction 5. This direction was chosen due to my belief in education being required to achieve improvement in project performance.

Section 2.4 explores practitioner development, direction 5 of the RPM network's recommendations. The current model and the competence models are reviewed highlighting their emphasis on technical competences and certifications; it is argued these models do not produce reflective practitioners. This is followed by an overview of active learning as a means of producing reflective practitioners. This involved the work of Ackoff and Greenberg (2008); Brown, Roediger III, and McDaniel (2014); Deakin-Crick (2009); and Jensen (2008) among others in developing reflective practitioners. Additionally, Wenger's, (1998, 2009) concept of communities of practice, is reviewed as this was considered an avenue to develop the more senior practitioners and other project support staff who felt the full development programme was not appropriate for their requirements.

The review of Systems Thinking shows how Vickers (1968) concept of appreciation was used in gaining an understanding of the problem and potential

dissolutions. The appreciation was synthesised with Ackoff's suggestions for dealing with problem situations. Efforts were made to avoid the two traps of not using Systems Thinking identified by Reynolds and Holwell (2010a), i.e. reductionism and dogmatism and together with elements of the Solutions Focus drawn upon in designing the model which was introduced into the Council. Also, investigated in the early days of this work was the Vanguard method (Seddon, 1997, 2008) which was achieving some success and traction within the public sector in the UK and there is a section outlining this methodology.

The final section reviews the engaged scholarship (Van de Ven 2007) and action research (Coghlan, 2002; Lewin, 1946; Sankaran & Dick, 2015) approaches taken in the research cycle of the dual cycle approach.

2.2 Projects

Projects have been carried out throughout human history as ways of realising ideas, (Cicmil, Hodgson, Lindgren, & Packendorff, 2009, p. 79; Kozak-Holland, 2011, p. 19; Morris, 2013, p. 12) for example: the construction of the Pyramids, Stonehenge, the medieval cathedrals, numerous wars, the Manhattan project as well as smaller ideas such as cooking and consuming a meal. Projects follow a similar pattern, (Morris, 2013),

1. The idea or initiative, what is to be achieved, problem solving, the purpose,
2. Feasibility, outlining the concept, selecting from different options, producing the business case,
3. Planning and design the activities, analysing risk and stakeholders,
4. Delivering or executing the project, applying the plans, monitoring progress,

5. Completion, handover of output.

This pattern is often termed the project lifecycle and Crawford et.al. (2006, p. 725) state that this lifecycle model is becoming usual with handover of the output to the operations to realise the benefits, however PRINCE2 explicitly excludes feasibility from a PRINCE2 project although it does suggest a project may be commissioned to carry out feasibility (Office of Government Commerce, 2009, p. 6). It would be erroneous to believe that projects are linear and follow the steps without iteration, nonetheless in hindsight this pattern can be identified. Recently an extended lifecycle (British Standards Institute, 2010, p. 26) has been conceived to accommodate the requirement for realising benefits. Figure 2.2 shows the extended lifecycle used in my model.

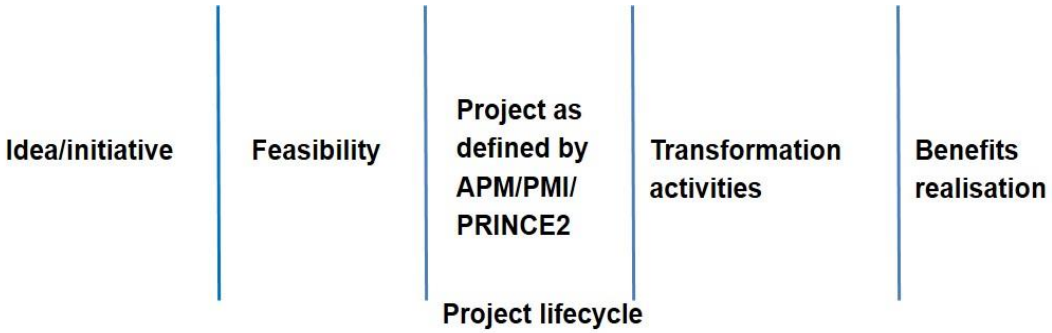


Figure 2.2 Expanded project lifecycle. (Adapted by author from British Standards Institute, 2010, p. 26)

The expanded life cycle model broadens the conceptualisation of a project from the narrow one used by PRINCE2, the Project Management Institute and the Association for Project Management. It was only in 2009 that PRINCE2 made any reference to benefits and even then *'…its treatment of benefits tends to be cursory'* (Ward & Daniel, 2012, p. 227). Winter et.al. (2006) visually represent this broader perspective in Figure 2.3, using an intervention perspective conveying the progress from problem situation to new improved state which is common to projects. It is important to appreciate the problem which requires

solution and to visualise the future state as will be explored further in this thesis. The diagram in Figure 2.3 also represents a project as a system showing two boundaries, the realm of traditional project management and the realm of business change. This concept of projects as systems will be explored further in section 2.6.

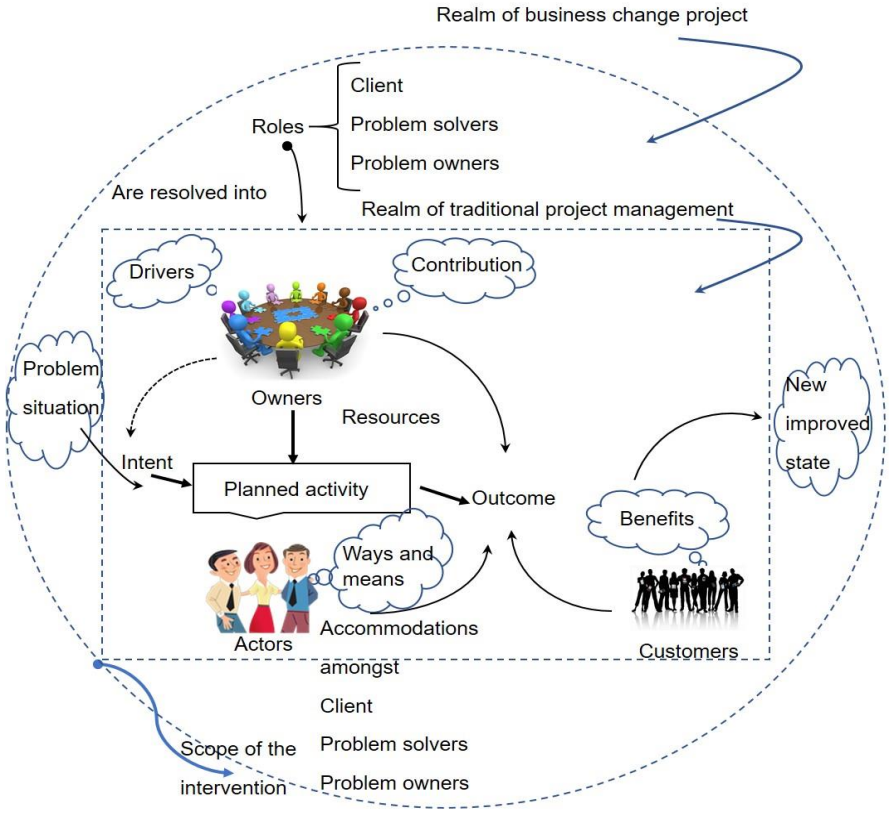


Figure 2.3 Business projects as intervention processes. (Winter et.al., 2006, p. 705)

The term project manager was first used in the Harvard Business Review in 1959 by Gaddis, (Morris, 2013, p. 60) and several authors suggest that project management as currently understood was formalised in the 1960s as the Project Management Associations became established and bodies of knowledge written and iterated over time (Lenfle & Loch, 2010; Morris, 2013).

Several authors have discussed or proposed definitions of projects (Atkinson, 1999; Cooke-Davies, 2000; Shenhar, 2015; Thorp, 1998; Turner, 2008; Wysocki, 2010). However, it may be argued that the three most influential definitions of project utilised in the UK are those from PRINCE2, the Project Management Institute, and the Association for Project Management, shown below. The PRINCE2 definition of a project is as follows:

> *'A project is a temporary organisation that is created for the purpose of delivering one or more business products according to an agreed Business case'* (Office of Government Commerce, 2009, p. 3).

The following is the Project Management Institute definition of a project:

> *'A project is a temporary endeavour undertaken to produce a unique product, service or result'* (Project Management Institute, 2008).

The Association for Project Management offers the following definition:

> *'A unique, transient endeavour undertaken to achieve planned objectives'* (Association for Project Management, 2014).

This definition is broader than the previous two and suggests that projects are intended to achieve objectives. However, these may be interpreted broadly, as business objectives, or more narrowly, such as focussing on outputs alone. The Association for Project Management body of knowledge states the following:

> *'Commonly, work of a lesser scale and complexity, leading to an output, is referred to as a project'* (Association for Project Management, 2012, p. 2),

a narrower definition and more akin to the Project Management Institute and PRINCE2 definitions. These definitions focus on the delivery of products/outputs with no consideration of benefits. The insistence on delivering

to an agreed business case, in practice *'cost, time and quality – two best guesses and a phenomenon'* per Atkinson (1999), introduces a further narrowing of the boundary drawn around projects (Ulrich, 2005). The following definition was the one used in the Council which made the realisation of benefits the purpose of projects and is how projects will be defined in this thesis;

> *'Projects are defined as a temporary endeavour comprising activities with resource constraints with the purpose of realising benefits'* (Summers, 2008, p. 5).

By applying this definition in the organisation, the emphasis was on the purpose of achieving benefits, and shows that a project comprises multiple activities subject to resource constraints. A corollary of this definition is that project success is measured by achievement of benefits moving the focus away from cost and time as the measures of success.

2.3 Rethinking Project Management network

The RPM network comprised academics and practitioners considering project management with a view to *'connect it more closely to the challenges of contemporary project management practice'* (Winter, Smith, et al., 2006, p. 639). Several outputs including a special edition of the International Journal of Project Management were produced with the main findings being '*a framework of five directions'* (Winter et al., 2006, p. 638), see Table 2.1 below, and 'a *strong need for new thinking to inform and guide practitioners'* (Winter et al., 2006, p. 640). The framework may be used to further research and combine theory and practice however, arguably, the main contribution of the network is the requirement to apply new thinking by researchers and practitioners in the field of projects. In designing and implementing my model, I applied new thinking to the development of project practitioners drawing on the disciplines of

Systems Thinking and staff development, experimented with these new ideas and reflected on the experience gained. The approach to improving project performance within the Council drew on the five directions albeit mainly directions 3, 4 and 5. Sauer and Reich (2009, pp. 183 - 184) suggest using the RPM framework to structure findings from research and section 6.2.5 shows this application. Table 2.1 details the five directions adding a brief commentary on each followed by further elaboration in the next sections.

Rethinking Project Management (ESPRC Network 2004 - 2006)

Directions for future research

IMPORTANT NOTE: the word 'Towards' means to enhance the 'from' position rather than to discard it

Theory ABOUT practice

Direction 1

The lifecycle model of Projects and PM →	Theories of the complexity of projects and PM
From: the simple lifecycle-based models of projects, as the dominant model of projects and project management. And **from:** the (often unexamined) assumption that the lifecycle model *is* (assumed to be) the actual 'terrain' (i.e. the actual reality 'out there' in the world). *This lifecycle model is strongly supported by the project management associations, PRINCE2 and the International and British standards and has been for around 50 years. It assumes an ordered environment taking little account of human interactions.*	**Towards:** the development of new models and theories which recognize and illuminate the *complexity* of projects and project management, at all levels. And **towards:** new models and theories which are explicitly presented as only *partial* theories of the 'complex' terrain. *This moves towards a greater understanding of project actuality, that projects are not separate from their environment or organisational context. The models of Kurtz & Snowden (2003) and Stacey (1996) help inform this direction.*

Implication

The need for *'multiple images'* to inform and guide action at all levels in the management of projects, rather than just the classical life-cycle model of project management, as *the* main guide to action, (with all its codified knowledge and techniques). Note: theories ABOUT practice can also be used as theories FOR practice.

↓

Theory FOR practice

Direction 2

Projects as instrumental processes →	Projects as social processes
From: the instrumental life-cycle image of projects as a linear sequence of tasks to be performed on an objective entity 'out there', using codified knowledge, procedures and techniques, and based on an image of projects as temporary apolitical production processes. *This is linked to direction 1 and is rooted in the belief that projects are linear in nature, can be understood and planned for at the outset.*	**Towards:** concepts and images which focus on social interaction among, illuminating: the flux of events and human action, and the framing of projects (and the profession) within an array of social agenda, practices, stakeholder relations, politics and power. *This concept considers projects as human activity systems (Checkland, 1999, p.110, 314) and impacted by events outside the control of the project manager.*

Direction 3

Product creation as the prime focus →	Value creation as the prime focus
From: concepts and methodologies which focus on: *product creation* - the temporary production, development, or improvement of a physical product, system or facility etc. – and monitored and controlled against specifications (quality), cost and time. *Definitions of projects concentrate on product creation often to cost and time budgets, see section 2.2 above, this leads to a narrow boundary and tight focus and disappointment for the commissioners of projects.*	**Towards:** concepts and frameworks which focus on: *value creation* is the prime focus of products, programs and portfolios. Note however: 'value' and 'benefit' as having multiple meanings linked to different purposes: organisational and individual. *Increasingly researchers (Badewi, 2016; Nogeste, 2006; Payne, 2007; Serra & Kunc, 2015; Shenhar, 2015; Summers, 2011a) are investigating benefits management as means of improving project success with a move towards business projects (Winter & Szczepanek, 2008) and better results for stakeholders.*

Direction 4

Narrow conceptualisation of projects →	Broader conceptualisation of projects
From: concepts and methodologies which are based on: the narrow conceptualisation that projects start from a well-defined objective 'given' at the start, and are named and framed around single disciplines, e.g. IT projects, construction projects, HR projects etc. *This is the classical view of projects (Svejvig & Andersen, 2015, p. 278) and assumes a technical requirement.*	**Towards:** concepts and approaches which facilitate: broader and ongoing conceptualisation of projects as being multidisciplinary, having multiple purposes, not always predefined, but permeable, contestable and open to renegotiation throughout. *The towards view suggests projects are in a state of flux impacted by emerging events in the organisational environment. Projects will require transdisciplinary skillsets and as with direction 3 should be considered as business projects rather than single disciplines.*

Theory IN practice

Direction 5

Practitioners as trained technicians	⇒	Practitioners as reflective practitioners
From: training and development which produces: practitioners who can follow detailed procedures and techniques, prescribed by project management methods and tools, which embody some or all of the ideas and assumptions of the 'from' parts of 1 to 4. *Training is an historical activity with trainers imparting information from bodies of knowledge or methodologies manuals. The focus is on tools and processes and within the Council in addition there was a focus on compliance training.*		**Towards:** learning and development which facilitates: the development of reflective practitioners who can learn, operate and adapt effectively in complex project environments, through experience, intuition and the pragmatic application of theory in practice. *The concept of continuous learning and adaptability underpin reflective practice; this links with the other four directions and is needed to ensure these directions are applied in practice. This was the desired purpose of the development activities undertaken and researched. I also believed that practitioners needed the ability to learn and adapt in their project environments.*

Table 2.1 Five directions for future research (Winter, Smith, et al., 2006, p. 642 with comments by author in italics).

2.3.1 Direction 1 From the lifecycle model of Projects and PM towards theories of the complexity of projects and PM.

This direction challenges the assumption that the linear lifecycle model represents reality (Winter, Smith, et al., 2006, p. 642) and states that new models recognising the complexity of projects are needed. Kurtz & Snowden, (2003) propose their Cynefin model as a way of sense making and determining the environment projects are in and is covered in section 2.5.5. Atkinson, Crawford, and Ward (2006, p. 688) suggest;

> *'In particular, there is a need to recognise that many project contexts are characterised by very high, difficult to quantify, levels of uncertainty where management flexibility and tolerance of vagueness are necessary.'*

It may be claimed most if not all projects will experience some level of uncertainty during their currency and practitioners need the ability to embrace and deal with this uncertainty. Stacey (1996) proposed a matrix suggesting that a combination of uncertainty and lack of agreement are the constituents of complexity as shown in Figure 2.4. Projects may traverse the terrain from chaos through complex and complicated to simple over their lifespan as suggested by this model.

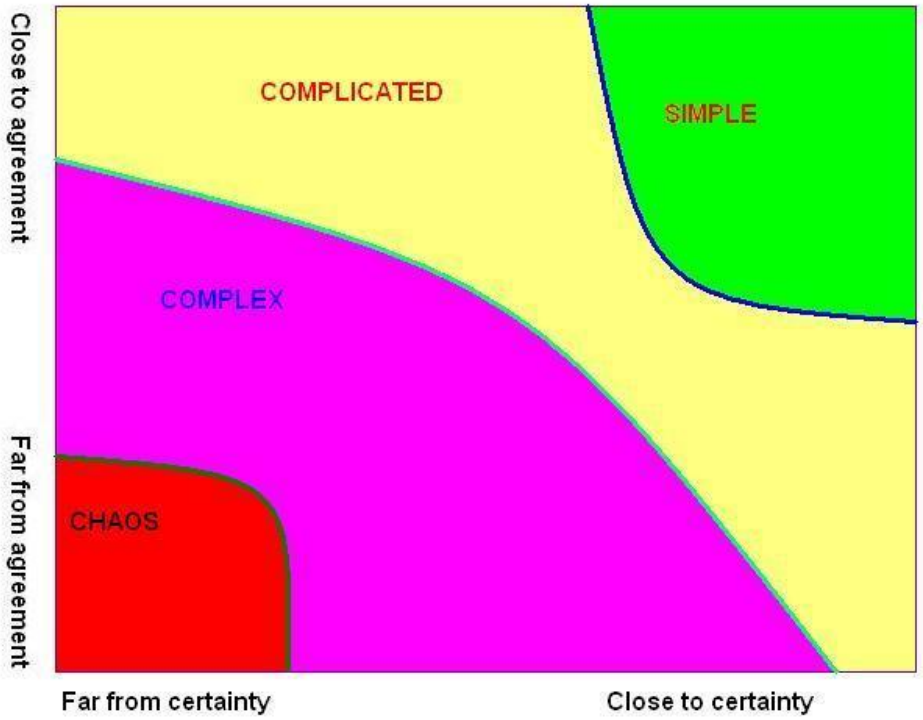


Figure 2.4 Chaos to simple. (Adapted from Stacey, 1996)

Atkinson et. al. (2006, p. 688) suggest developing *'…less tangible… more generic management processes…'* moving the focus away from '*operational planning and control.'* These authors list several areas were uncertainty may exist and good continual communications would ameliorate some of these.

In 2005 the College of Complex Project Managers was formed and later became the International Centre for Complex Project Management (International Centre for Complex Project Management, 2011). This group have produced competencies for complex project managers (College of Complex Project Managers, 2008). As indicated by its title the focus is on so-called 'complex' projects however, some of the projects they promote are complicated or difficult rather than complex when applying the Cynefin model to these projects. Whitty and Maylor (2009, p. 305) are critical of this association, stating that the projects managed by the Fellows of the ICCPM are complicated rather than complex. Examples are combat ships and railroads amongst others, which are complicated not necessarily complex. These authors state that uncertainty alone is not an indicator of complexity, rather they define as follows:

> *'A complex system is a system formed out of many components whose behaviour is emergent. That is to say that the behaviour of a complex system cannot be simply inferred from the behaviour of its components.'* (Whitty and Maylor, 2009, p. 306)

This suggests that simply analysing a system and reducing it to its component parts will not predict the behaviour of the system. The concept of reducing a system to its parts is considered a trap of not using Systems Thinking by Reynolds and Holwell (2010b, p. 6) and Systems Thinking will be analysed further in section 2.4. Projects and the wider organisations involved in delivering them are human activity systems (Checkland, 1999, p.110, 314); and the processes cannot be separated from the people involved (Winter & Smith, 2006, p. 13) nor the environments in which they exist. I used the following analogy in workshops facilitated in the Council: complicated can be thought of as an Apollo space rocket, a good engineer could strip one down and rebuild it using the manual; complex is like bringing up a child, there is no manual, even within the same family there will be differences. Projects go across these

boundaries with some parts being simple, some complex, some complicated and some chaotic.

Further discussion of complexity theory is beyond the scope of this work however the suggestion of Atkinson et.al. (2006) of moving from *'operational planning and control'* was introduced into the model I developed.

2.3.2 Direction 2 From projects as instrumental processes towards projects as social processes.

The network considered the actuality of projects and suggest that the focus should be on social interaction and the flux of events and action rather than an instrumental linear life cycle model (Winter et.al., 2006, p. 642). This includes *'stakeholder relations, politics and power'* numerous authors including Bourne and Walker (2006); Davis (2014); Missonier and Loufrani-Fedida (2014); Sutterfield, Friday-Stroud, and Shivers-Blackwell (2006) stress the importance of stakeholder engagement throughout the life of a project and in the evaluation of project success. Furthermore as Sidhu, (2012); Yng Ling & Ma, (2014); Zulch, (2014a, 2014b), state communication is an important element in projects; Cicmil, Williams, Thomas, and Hodgson (2006, p. 675) propose that future research should consider the actuality of projects and their management rather than traditional project management practices.

The dual cycles of this work embrace this concept; the research by applying engaged scholarship, and the problem-solving by exploring different approaches to developing practitioners' social interactions utilising collaborative learning.

2.3.3 Direction 3 From product creation as the prime focus towards value creation as the prime focus.

This direction proposes moving from the traditional focus on producing an output to cost, time and quality towards a new focus on creation of value for the organisation. Writers such as Bradley (2006); Jenner (2010, 2011); Payne (2007); Shenhar (2015); Shenhar et al. (2007); Turner (2008); Ward and Daniel (2012) have argued the case for benefits as the purpose of projects. Winter, Andersen, Elvin, and Levene (2006, p. 699) state a recent development has been '*…the emergence of a new class of projects…'* which they call business projects, which are more *'value-centric'* (Winter et.al. 2006, p. 700). They furthermore state that value creation is increasingly the focus for business projects rather than product creation. However, at the commencement of this work and currently (2018) definitions of projects are focussed on delivering products to cost, time and quality, as discussed in section 2.2, all emphasising product creation. This is despite the RPM network's proposals and that of other authors over the past 20 or more years. Winter et.al. (2006, p. 701) draw on Normann's concept of *'…improving the second-level relationship…'* so that the organisations' customers benefit from the project output, product, service, or combination, thus creating value for the organisation by growing the business, although it is made clear that this is one image of business projects and that multiple images are possible (Winter & Szczepanek, 2009). Winter and Szczepanek (2008) propose applying Normann (2001) value creation logic to projects so that the project output is seen *'…more as an input to some wider system of purposeful activity…'* (Winter and Szczepanek, 2008, p. 98), and thus creates value. This requires the project team to understand how their output will be used to satisfy their customers' customer's requirements, the second-level relationship per Normann. In the Council, the residents and visitors to the city would be the beneficiaries under this model. Figure 2.5 shows Normann's

concept of value creation graphically; positioning the project in relation to the project customer and the customer's customer. In this model, the project still has a focus on an output although there is an expectation that the project is executed to achieve a purpose beyond the mere delivery of an output.

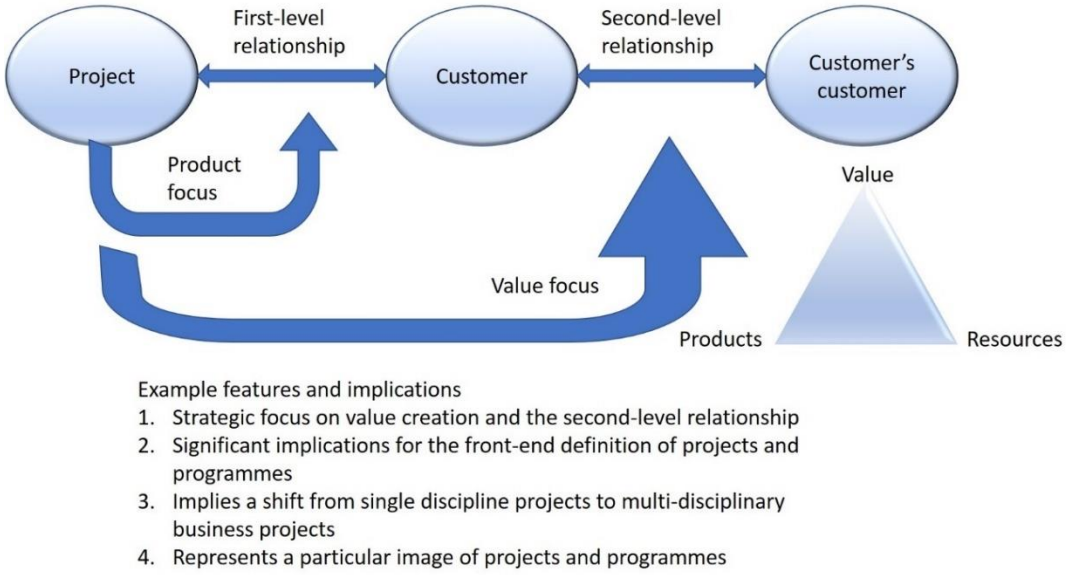


Figure 2.5 Projects and programmes as value creation processes. (Winter et.al 2008, p. 98)

Thorp (1998, p. 62) proposes a benefits realisation approach to produce business results composed of three elements;

1. program management; this enables a better understanding of the risk/reward relationships
2. portfolio management; giving organisations methods of diversifying risk and
3. full cycle governance; this provides better methods of managing projects, programs and portfolios.

This approach is based on financial portfolio management which provides an appropriate balance of investment based on an agreed risk appetite. Thorp

suggests that a benefits mind-set needs to be learned and that new processes and structures will be needed to achieve benefits realisation, which he states is needed to produce business results. He also advocates the use of value cases rather than business cases which he states are static, one-shot documents. Continuing business justification is a requirement of most projects and a stage process is often used to achieve this (Association for Project Management, 2012; AXELOS, 2017). More recently Bradley (2006, p.97) writes of the valuing of benefits and suggests this is the *'magnitude of the improvement associated with the benefit'.* This also provides a means of evaluating the realisation of the benefits which can be used to determine the success of projects. Bradley (2006, p.98) gives an example of a benefit *'fewer steps in a process'*. This benefit is then shown in a benefits map leading to reduced salary costs amongst others. Arguably this reduction in salary costs is the benefit, although it may also be argued that this is the value to the organisation from the benefit, *'fewer steps in a process'.* The business is concerned with achieving these savings and may use benefits and value interchangeably in discussing their projects. In this thesis and the Council benefits were the purpose of projects and were expressed in terms of the benefit to the organisation so that in the example above the salary cost reduction was the measured benefit. Figure 2.6 shows how benefits were the capstone of project activity in the Council.

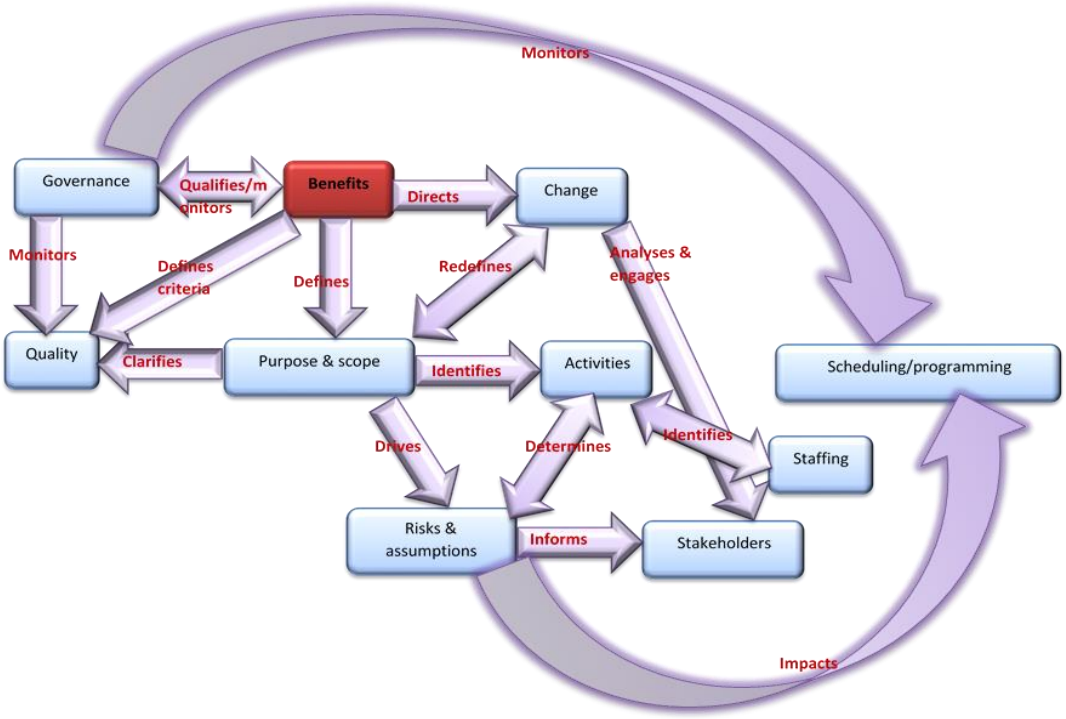


Figure 2.6 The interconnectedness of projects with benefits as the keystone. (Author's work based on Office of Government Commerce, 2007, p. 62)

This also requires a broader conceptualisation of projects as suggested in direction 4 below. Value is necessary to meet the expectations of the stakeholders who sustain the organisation's existence (Winter et.al.2006, p.705), which for the Council would be residents, visitors and central government although a local council has statutory duties and is non-profit making.

Recently the research of Badewi (2016b) Marnewick (2016); Nogeste (2006); Serra (2013); and Serra and Kunc (2015), have demonstrated that a focus on realising benefits improves project performance. Benefits are defined by the former Office of Government Commerce as

> *'A quantifiable and measurable improvement resulting from an outcome which is perceived as positive by a stakeholder and which will normally*

> *have a tangible value expressed in monetary or resource terms. Benefits are realised as a result of activities undertaken to affect change'.*

The Association for Project Management does not provide a definition of benefits although they do define benefits management as the

> *…identification, definition, planning, tracking and realisation of business benefits'* (Association for Project Management, 2012, p. 124).

Authors such as Breese, Jenner, Serra, and Thorp (2015); Chih and Zwikael (2015); Dalcher (2016); Esteves (2009); and Jenner (2010, 2011) suggest benefits realisation needs to be explicitly stated in business cases. The Highways Agency and the Department of Transport require an evaluation plan for all their funded projects. These agencies fund transport schemes in the United Kingdom and focus project activity on realising benefits and these are followed up with Post Opening Project Evaluations (POPE), one and five years after the handover of the output (Gov.uk, 2016).

Both Jenner (2010, p. xi) and Rajegopal, McGuin, and Waller (2007, p. 39) link benefits realisation to project portfolio management and strategic activity. Projects are commissioned to produce business results – benefits to the organisation not simply an output as Shenhar (2015) makes explicit in this keynote speech. Too often though business cases are approved based on affordability not the return on the investment as Bradley (2006, p. 3) states *'...how often organisations 'put the cart before the horse."*

Coombs (2015, p. 363) suggests that the success of projects needs to be more than just achieving cost, time and feature requirements, an echo from Atkinson (1999) and his *'…two best guesses and a phenomenon'.*

2.3.4 Direction 4 From narrow conceptualisation of projects towards broader conceptualisation of projects.

This direction challenges the viewpoint that projects are single discipline e.g. IT projects and proposes that they are multidisciplinary in nature. Additionally, the network suggested projects are permeable and open to renegotiation rather than a fixed well-defined objective, meaning that practitioners need to be adaptable to flex with the *'flux of events and ideas'* (Vickers, 1968). Sauer and Reich (2009) proposed two new models building on the RPM work as shown in Figures 2.7 and 2.8 and which show projects as a social construction.

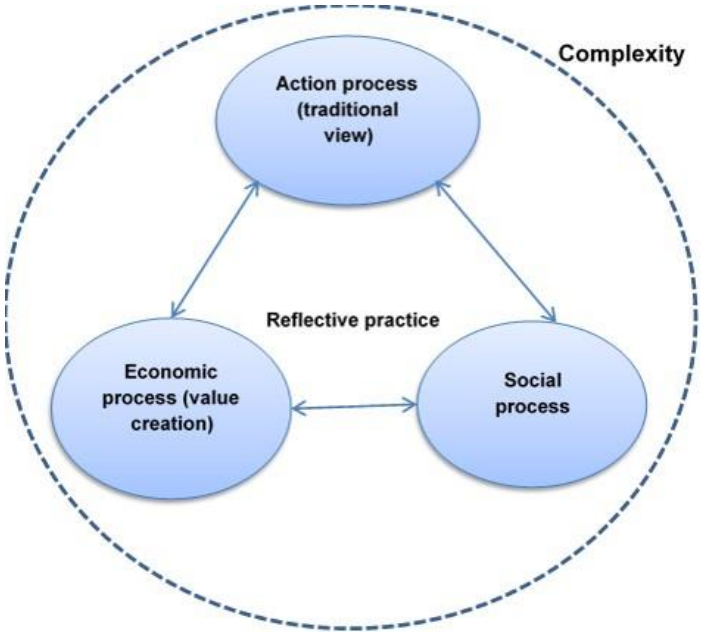


Figure 2.7 Broad conceptualisation of projects. Combining RPM research directions with the traditional approach to projects. (Sauer and Reich, 2009, p. 183)

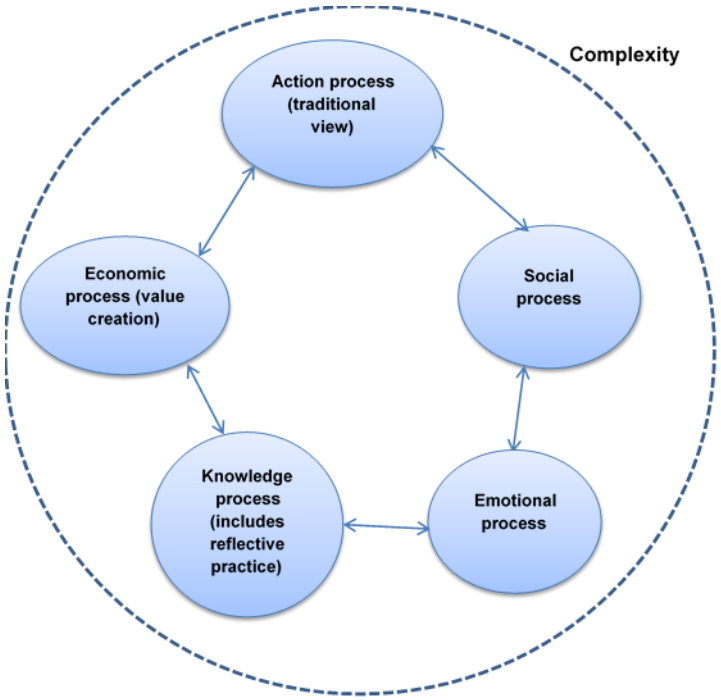


Figure 2.8 Multiple process views of IT projects (expanding upon Rethinking Project Management). (Sauer and Reich, 2009, p. 190)

The authors suggest two further directions to add to the RPM directions;

> *'…projects as a knowledge process and projects as an emotional process.'* (Sauer and Reich, 2009, p. 192)

they thus propose the model in Figure 2.8 to address this omission. The model includes reflective practice as a component of knowledge process and shows interconnectedness. It may be argued that the components do not simply connect with the one ahead and the one behind but also across as shown in Figure 2.9 below.

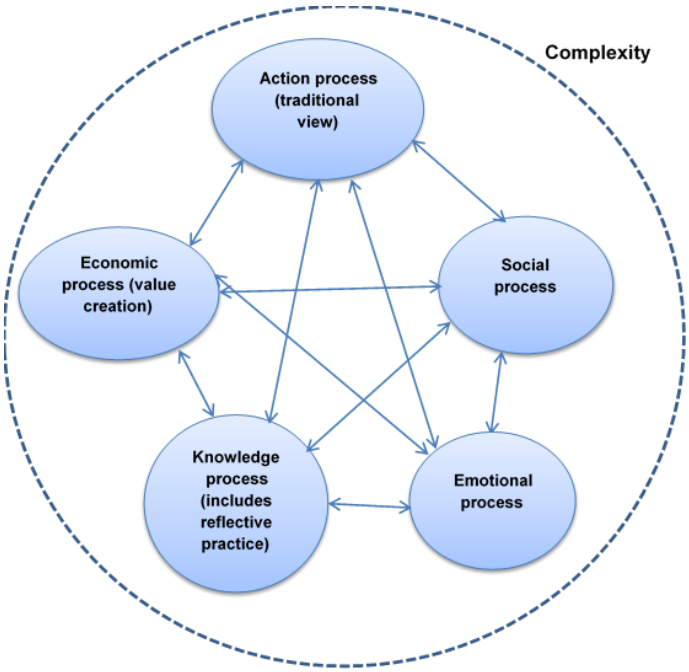


Figure 2.9 Multiple process views of projects (expanding upon Rethinking Project Management). (Adapted from Sauer and Reich, 2009, p. 190)

Authors such as Morris (2013), Shenhar (2015) and Turner (2008) suggest the concept of a project needs to include the realisation of benefits to achieve business results and this requires a broader conceptualisation of projects as shown in section 2.3.3. In section 2.5 the concept of boundaries is introduced and that in using Systems Thinking to understand problems the actor will draw a boundary in constructing the system of interest. It is suggested that moving from a narrow conceptualisation to a broader one required the expansion of the conceptual boundaries.

2.3.5 Direction 5 From practitioners as trained technicians towards practitioners as reflective practitioners

This direction forms the main contribution to knowledge of this thesis proposing an approach to developing reflective practitioners which is worthy of further

research. In 2006 the network suggested that practitioners are trained to follow detailed procedures bound by methodologies and tools and it is proposed to develop practitioners who are adaptable and pragmatic. Crawford et al. (2006, p. 722) state project management is moving from

'…a predominantly technical skill-set to a broader practise of reflectively managing the things needed to provide a successful project outcome.

Authors involved in the RPM network state that project management qualifications are focussed on the bodies of knowledge of the project management associations or methodologies such as PRINCE2 (Crawford et.al., 2006, p. 724), (Winter et al. 2006, p. 646). This arguably is still the case 10 years on with currently more than one million people certified as project managers via the Project Management Associations (Association for Project Management, 2011; International Project Management Association, 2011; Project Management Institute, 2016a) and PRINCE2 (Knowledge Train, 2012) qualifications alone, which suggests that practitioners as trained technicians dominate. This combined with the recent research by Ramazani & Jergeas (2015, p. 41), who claim there is a gap in provision and the need in practice, suggests that the RPM proposals are in the main not being acted upon. Furthermore, notwithstanding this significant number of certified project managers, projects are still failing with regularity (Dalcher, 2003; Kapsali, 2013; National Audit Office, 2010b; The Standish Group, 2009, 2013, 2014b; Thomas & Mengel, 2008). Crawford et al., (2006, p. 724 - 725) considered practitioner development as both narrow and shallow. They suggest six specific implications for practitioner development;

1. *Application of project management to a range of project types with characteristics that differ from those for which project management practices were first developed (government funded defence/aerospace and construction).*

2. *Extension beyond "execution-focused" project management to a whole-of-life concept of projects – from initiation, through operation to cancellation.*
3. *Change of focus from product creation to value creation, from well-defined outputs to less tangible outcomes or benefits. Extension of the breadth of project management to include program and portfolio management in a broader conceptualisation of management of projects as a strategic corporate capability.*
4. *Increasing actual and perceived complexity – for many reasons including changing societal values; increased stakeholder involvement and influence; more complex governance, ownership and delivery structures; and advances in communication technology that enable global and virtual working, and accelerate time pressures.*
5. *Integration with rather than isolation of projects from the business.*
6. *Aging of the workforce and the need for succession planning.*

These criteria were applied in the design of the LPMDP and will be reviewed in Chapter 6 when evaluating the findings. In section 2.4 I review the literature on practitioner development and expose the gap that this thesis contributes to.

2.3.6 Impact of the RPM

Svejvig and Andersen (2015); and Walker and Lloyd-Walker (2016) considered the impact of RPM on the literature in project management journals using similar criteria. The main difference being the exclusion of Hodgson and Cicmil (2006) Making Projects Critical and the Scandinavian school from the earlier analysis. Svejvig and Anderson (2015) concluded that a total of 74 contributions, around 6% on the total they reviewed, on Rethinking Project

Management had been published since 2006 with 59 since the RPM network's reports published in 2006. This was across 26 publications and a total of 1279 possible contributions. There are nine books and three conference papers in this list of 74, also included are the eight articles in the special issue of the International Journal of Project Management detailing the results of the RPM network. This leaves a total of 51 contributions excluding the special issue articles over a nine-year period 2006 – 2015.

The second analysis was limited to the International Journal of Managing Project in Business which was first published in 2008. The analysis looked at citations from the three research interest clusters of the RPM network, Making Projects Critical and the Scandinavian school giving a measure of influence. This research suggests that 47% of a total of 309 articles are influenced by the three clusters. However, looking at the RPM network influenced alone this becomes 30 articles of 309. There is also a breakdown by the five directions with direction 5 the lowest mean of 1.3 articles per annum when measuring content, which is defined as the stated purpose of the paper (Walker and Lloyd-Walker, 2016, p.729). These two analyses suggest that the RPM network framework has had a limited impact on research. It must be stated that the findings of these researchers exclude doctoral or masters research, so the influence may be greater than the bare figures suggest.

Assessing the impact on practitioners is more difficult however the high number of certifications through the project management associations and PRINCE2 suggests the concept of reflective practitioners has some way to go for acceptance. Jaundrill (2014) suggests an approach to move practitioners from a learning environment of achieving qualifications towards practitioner development which he states as being radical and innovative; again, suggesting limited acceptance of direction 5 into the world of practice. A further example, in the Summer 2016 issue of Project the Association for Project Management's

journal in the regular for/against section an academic argues the case against the iron triangle (Atkinson, 1999), whereas a practitioner strongly supports the iron triangle. This suggests the concept of value creation is some way from acceptance in practice by project management practitioners. Winter and Szczepanek (2008, p. 96) suggest

> *'Despite these developments however, the core image in much of the literature is still that of temporary production, which gives primacy to the criteria of specification, cost and time, rather than the value and benefits created or contributed by a particular project or programme.'*

This all shows a gap in the literature and that the RPM network framework may be structured for the research in this work.

2.4 Practitioner development

In this section I will review practitioner development describing the prevailing model which the United Kingdom government follow and is also endorsed by the Project Management Associations. I will outline the process for gaining certification as a PRINCE2 practitioner which other certifications also apply. This model is based upon processes, thus producing '*trained technicians rather than reflective practitioners'* (Winter & Smith, 2006, p. 5; Winter et al., 2006, p. 642). I will then review the competence models of the Project Management Associations demonstrating the emphasis on technical rather than behavioural competences which again emphasises trained technicians. The concept of reflective and reflexive practitioners is reviewed as both Checkland, (1985, p. 757) and Laing (1971, p. 23), state that practitioners need to be reflective and the RPM network propose the development of reflective practitioners in direction 5 as shown in Table 2.1 on page 56. This will be followed by an exploration of active learning and how this can be utilised in the education of

those involved in projects and finally show how communities of practice can support the education of project staff.

2.4.1 The current model

The first project management association was formed in 1965, the International Project Management Association, this organisation also acts as an umbrella for around 50 national associations including the UK's Association for Project Management. In 1969 the Project Management Institute was formed in the United States of America and is now considered the most influential of the Project Management Associations (Lenfle & Loch, 2010, p. 32). The Association for Project Management was established in 1972, is UK based and received chartered status from the UK government in January 2017 (Association for Project Management, 2017); a status which will probably increase its global influence over the next few years.

The Project Management Associations all follow a similar operating model comprising a set of competences, a body of knowledge and a certification programme and produce definitions of projects. The Project Management Associations introduced examinations based on their bodies of knowledge which provide the main route for project certification and practitioner education. These associations are very influential in determining the epistemology and trajectory of the discipline, through their definitions of projects and bodies of knowledge. Increasingly Universities offer project management education at both undergraduate and postgraduate levels however a quick review of advertisements in the UK reveals that a substantial majority of project management positions require PRINCE2 practitioner certification.

The Association for Project Management has produced six iterations of its body of knowledge and has several certifications at a rising level of ability, as well as a separate membership route not dependent upon successful certification. The Project Management Institute also has a body of knowledge which has undergone six iterations and they also offer certifications in a layered model. This leads to a body of knowledge which has *'…standards and guides produced by the project management professional associations.'* Crawford and Nahmias (2010, p. 406) and Winter, et al. (2006, p. 646) suggested that

> *'Current industry offerings however, in training and development, tend to centre on particular products – such as PRINCE2 [89] and MSP [72] – many of which embody some or all of the mainstream ideas in project management…'*

.

The emphasis of these *'current industry offerings'* is on the training of technical skills and processes rather than gaining a mastery of the activities needed to execute a project. There is no attempt to develop the behavioural skills required, notwithstanding the literature which suggests that people skills are more important than technical ones (Buckle & Thomas, 2003; Crawford & Nahmias, 2010; Fisher, 2011; Pant & Baroudi, 2008; Ramazani & Jergeas, 2015; Sewchurran, 2008). Certifications such as PRINCE2, Managing Successful Projects and the Association for Project Management Professional can be successfully gained in 5 days and without the examinee having any experience in projects. They can then label themselves certified project managers. Crawford et al. (2006, p. 724) make the following observation on the training of project practitioners;

> *'The BOKs in fact exert an extremely strong influence on the conceptualisation of the training and development deemed appropriate for project management. The majority of current offerings in terms of training, education and qualifications offered by professional associations, commercial training organisations and academic institutions and supported by both practitioners and their employers are*

> *heavily weighted towards the knowledge areas of these BOKs. In doing so, those following the PMBOKs Guide are de facto promoting a conceptualisation of projects as having well defined goals and being amenable to management throughout a life cycle with clearly defined beginning and end using a largely linear sequence of tasks and calling on codified knowledge, procedures and techniques. The ESPSRC Network [59] accepting that this characterisation has significant value for much project management practice, argue that it falls far short of the reality, particularly of the larger and more complex projects.'*

The certification route for PRINCE2 is now described, however the whole of the Axelos portfolio including Agile, use the same model and it is possible to achieve the Association for Project Management Professional certification in the same way. The certification route to become a PRINCE2 practitioner usually consists of attendance on a 5-day course (Best Practice Training, 2017; ILX, 2017), commencing on a Monday, with the Foundation examination being sat on Wednesday afternoon and the Practitioner examination sat on Friday morning subject to successfully passing the Foundation examination. This involves examination of candidates on the PRINCE2 manual. This tests few of the activities required for good management of projects. While Planning and Risk are covered, such important factors as Stakeholder Engagement and Benefits Management are omitted.

In the United Kingdom, most project management qualifications are obtained in this intensive, examination-focussed manner which is as Jaros and Deakin-Crick (2007, p. 424) write *'...the memorizing of second-hand information,'* with PRINCE2 this is more usually third hand as the trainers do not need experience of managing projects. This training follows a linear lifecycle and takes no account of uncertainty nor complexity nor the requirement for behavioural skills in delivering projects; for as Winter, et al. (2006, p. 646) state

> *'Experience shows however that it is people who deliver successful projects, not methods and tools, and it is people's ability to engage*

intelligently with the complexity of projects, that is central to the successful management of projects.'

Conversely the Project Management Professional from the Project Management Institute (Project Management Institute, 2016b) has pre-requisites of a degree, an element of project education and experience of leading and directing projects. The examination element however, consists of a 4-hour 200 question multiple choice paper, based on their body of knowledge.

Savelsbergh, Havermans, and Storm (2016, p. 559) suggest a significant amount of project manager's learning is through experience rather than by studying although over one million people have been certified by the various examining bodies and job advertisements usually have a certification requirement. Laing (1971, p. 23) suggests

'We often discover what we do after we have done it. An advantage of this is a certain empirical pragmatic approach. Disadvantages are that without time for critical reflection we may become dogmatic in theory, and keep repeating ourselves in practice.'

The need for reflection by practitioners was suggested in direction 5 of the RPM network framework (Winter and Smith, 2006) and by others (Ashleigh, Ojiako, Chipulu, & Wang, 2012; Brière, Proulx, Flores, & Laporte, 2015; Chronéer & Backlund, 2015; Córdoba & Piki, 2012). However, project management learning and development activities in the United Kingdom local government sector have mainly concentrated on training leading to the PRINCE2 practitioner certification (Local Government Innovation and Development, 2008 - 2015). PRINCE was first developed by the United Kingdom government in 1986, when it was known as PROMPT, as the standard approach to IT project management for central government. This methodology has been widely adopted for other project areas in both the public and private sectors (Office of Government Commerce, 2008). Nonetheless there are high levels of project failure in the public sector (BBC,

2002, 2004, 2005a, 2013; Information Age, 2011, National Audit Office, 2010b), suggesting this emphasis on training people in project management is not supplying practitioners who can deliver projects successfully. Neither is the training approach meeting the requirement to produce *'reflective practitioners'* (Winter & Smith, 2006, p. 5; Winter et al., 2006, p. 242). Recent research by Ramazani and Jergeas (2015, p. 41) highlights that

> *'There is a gap between what education providers are offering and what is needed to deal with projects in today's complex work environment.'*

It should be noted that this research was conducted with project managers in the Calgary oil and gas sector, however an earlier article by Louw and Rwelamila (2012) makes a similar point about South African universities. This suggests an avenue for research in the UK.

PRINCE2 and other external options are very examination focussed and training based; that is historic activity concentrating on perceived best practice with attention to a prescribed methodology which assumes a controlled environment. The qualifications from the Association for Project Management and Project Management Institute require examination on their respective bodies of knowledge which are focussed on technical rather than behavioural competences as evidenced by the over 50% preponderance of technical skills listed in these bodies of knowledge, (Association for Project Management, 2011; Project Management Institute, 2007) and shown in the table 2.2 below. This focus on tools and techniques is despite the findings of the RPM network and Martin (2000, p. 201) who states

> *'Both quantitative and qualitative, hard (objectivist, scientific/engineering) and soft (subjectivist, social) skills are needed.'*

Crawford and Pollack (2004, p. 645) report that the terms soft and hard are becoming more used in the literature on projects and their management

however the certification models do not reflect the requirement for both technical and behavioural skills, even some University degree courses concentrate on tools and methodologies rather than behavioural skills (Ramazani and Jergeas, 2015). In the design phase of my model these concepts were considered especially in the learning and development design, where a mixture of technical and behavioural skills were included to ensure the delegates were encouraged to learn and practice both technical and behavioural skills.

The current certification models are based on training and examining against a set manual or body of knowledge, which are retrospective and leave those so trained poorly equipped to deal with uncertainty. There is no attempt at encouraging the delegates in learning adaptability to deal with events. PRINCE2 as a methodology concentrates on technical skills with no element of behavioural skills considered. In addition, until the 2009 refresh benefits were not considered and even in the 2009 refresh *'…its treatment of benefits tends to be cursory'* (Ward & Daniel, 2012, p. 227). This means it has little value in producing people who have a mastery of the requirements and understanding of the purpose of projects as vehicles of value creation.

Smith and Winter (2005) in an interim report of the RPM network highlighted three areas were training was inadequate in developing practitioners;

> *'1. An "excessive focus" on methods and tools rather than craft knowledge;*
> *2. A "dislocation" between training, development, and practice; and*
> *3. An "excessive focus" on acquiring knowledge at the expense of capability development.'*

The next section considers the competence models of the project management associations and shows they are focussed on technical rather than behavioural

competences and contribute to the concerns highlighted by Smith and Winter (2005).

2.4.2 Competences

Table 2.2 below shows a breakdown of the competences stipulated by some of the Project Management Associations showing the number and percentage that are technical, contextual, and behavioural. It will be seen that there is an emphasis on technical competence, the so called hard skills rather than behavioural, the soft skills, this despite research into this area by authors such as Pant and Baroudi (2008) Ramazani and Jergeas (2015) and Cheng, Dainty, and Moore (2005). This table shows the competence requirements with the Association for Project Management v1 and v2 models being displayed. The Association for Project Management revised their competence model, publishing version 2 in June 2015 with 27 competences rather than the 47 previously in their body of knowledge version 6. It is of note that the emphasis in this new version is even more on technical competences than the previous version, which is surprising given Winter and his colleagues call for more reflective practitioners and less trained technicians. Also shown are the competences covered by the PRINCE2 examinations that are almost totally technical in nature and considerably less in number than the Project Management Associations suggest is required for competent project managers. This shows the strong emphasis on technical skills in the Project Management Associations bodies of knowledge, bearing in mind that the certifications will test those skills. This review of current competences demonstrates that the Project Management Associations and authors of PRINCE2 are ignoring or overlooking the suggestions of Crawford et.al., (2006); Winter and Smith (2006); Winter et al. (2006), to move from *'trained technicians to reflective practitioners.'* In 2012, I introduced a competence model to the Council which comprised 30 competences which is also displayed in Table 2.2. These competences placed

emphasis on the behavioural and contextual skills required in the execution of projects rather than heavily skewed in favour of technical skills as can be seen from Table 2.2.

Competence	Technical		Contextual		Behavioural		Total
	#	%	#	%	#	%	#
PRINCE2	11	92	1	8	0	0	12
PMI	32	58	10	18	13	24	55
IPMA	20	43	11	24	15	33	46
APM v1	30	64	9	17	8	19	47
APM v2	22	81	1	4	4	15	27
ICCPM	30	52	13	22	15	26	58
Total	115	58	36	18	47	24	198
PCC	12	40	7	23	11	37	30

Table 2.2 Competence frameworks based on Association for Project Management, (2011, 2015), International Centre for Complex Project Management, (2011), International Project Management Association, (2011), Project Management Institute, (2007)

There is a belief that competence based training will serve the project network better (Brière, Proulx, Flores, & Laporte, 2015) and as Jaros and Deakin-Crick (2007, p. 424) suggest

> *'This is a call for a new approach to curriculum structure and delivery, and for a new style of benchmarking in which the competencies are the learning outcomes supported, rather than led, by subject knowledge.'*

However, the competences need to be more focussed on behavioural rather than technical competences for project managers. Technical skills such as planning are required however project managers are foremost managers and as such are dealing with people. They need to be able to communicate, team build, negotiate, motivate and lead, all behavioural competences. Jałocha, Krane, Ekambaram, and Prawelska-Skrzypek (2014, p. 248) propose a typology of competences as the basis for *'…developing training programs and academic curricula for public sector project managers'.* This typology is based on the

IPMA and the North Carolina Office of State Personnel competence models and is mainly focussed on technical skills. The concept of identifying the competences required and then building the development activities was adopted in the design of the LPMDP. A competence model was designed however the LPMDP looked to develop the following specific competences:

1. Innovative and creative
2. Able to think critically
3. Able to collaborate (Hart Research Associates, 2013).

The next section considers the literature on reflective practitioners and how they can be developed.

2.4.3 Reflective and reflexive practitioners

In section 2.3.6 the impact of the RPM network was explored by the number of articles influenced by the RPM network. Svejvig and Anderson (2015) considered that a total of 59 articles had been so influenced and of these, seven are concerned with project education, one being Crawford et.al. (2006) from the special issue devoted to the RPM network. The special issue of the International Journal of Managing Projects in Business, a 10-year retrospective of the RPM network also has a single article about practitioner development (Turner, 2016), in which the author proposes the use of reflective reports as part of the assessment of an University course module.

Most contributions are concerned with University based education (Alam, Gale, Brown, & Kidd, 2008; Ashleigh et al., 2012; Bredillet, Conboy, Davidson, & Walker, 2013; Louw & Rwelamila, 2012; Mengel, 2008; Ramazani & Jergeas, 2015; Small & Walker, 2010; Turner, 2016; Walker, 2008) rather than workplace education yet writers such as Schön (1983) suggest an *'epistemology of*

practice.' (Schön, 1983, p. viii) using both reflection in action and reflection on action; clearly workplace based. Jones and Kriflik (2005, p. 399) argue that *'Reflection-in-action is a spiral process of appreciation, action, and reappreciation.'* This builds on the work of both Vickers and Bateson as will be discussed in section 2.5.1. Education in the workplace as well as University can be utilised to develop reflective and reflexive practitioners (Coghlan & Brannick, 2014; Mezirow, 1991, 1997), and this thesis is concerned with workplace practitioner development, a subject absent in the literature; as Svejvig and Andersen (2015, p. 286) state

> *'Although we have a solid body of knowledge for RPM, it is still lacking wide diffusion into practice, and this is really a major change for the profession and academia, ...'*

Articles by Berggren and Söderlund (2008, p. 286); and Ojiako, Johansen, Edum-Fotwe, and Greenwood (2008, p. 2) state there is a shortage in the literature on developing reflective practitioners. As a corollary, there is little guidance on how to develop reflective practitioners and a lack of evidence to support such guidance. This is a gap in the literature of developing reflective practitioners within the workplace and it is this gap this thesis aims to make as its contribution to knowledge. This section will explore the literature and consider how the nursing and teaching disciplines have approached the need for reflective and reflexive practitioners.

Alam et al. (2008); and Gale and Brown (2003) describe a collaboration with four international organisations in producing a Masters level development programme. The programme delivery was project managed and was based on the project management association's core competences however neither article indicates any reflective element. The programme was designed prior to the RPM network directions and will have been driven by the organisations' requirements and as the project management associations have not included

reflection as a competence this omission is not surprising. However Crawford et al. (2006, p. 728); and Winter and Gale (2003) state a reflective practice dissertation was utilised on this programme. An article by Ojiako et al. (2008, p. 1) suggests the need to re-think project management education is emerging and further state that although the need for reflective practitioners has been made by the RPM network (Winter et. al, 2006) there is a paucity of literature covering reflective and reflexive practice nor is this need in the Association for Project Management's body of knowledge. Ojiako et al. (2008, p. 4) produce a table showing the difference between trained technicians and the 21st century practitioner reproduced below as Table 2.3.

Criteria	The Trained Technician	The 21st Century Practitioner
Attitudes and Initiative	Follows rules and prescriptions	Informed by principles and frameworks
Knowledge	Sees knowledge as graspable and permanent	Sees knowledge as temporary and dynamic
Approach to Practice	Prescriptive approach to practice	Pragmatic approach to practice
Perception and Outlook	Embraces the known	Embraces uncertainty
Ability	Technical expertise is all	Professional judgement counts
Approach	Emphasises assessment and accreditation	Emphasises reflection and deliberation
Professional Development	Technical training	Professional development

Table 2.3 Characteristics, Traits and Practices relevant to 21st Century Project Managers. (Ojiako et al., 2008, p. 4 based on Major Projects Asssociation, 2006)

This article suggests four limitations of reflective practice, however does not propose any way to overcome these limitations nor do the authors propose a means of practitioners becoming more reflective. The four limitations are; a lack of project management theory, due to the large knowledge base research guided models cannot be relied upon for practical application, the goal orientation leading to a focus on methodologies of best practice and professional competency and finally that reflection is too academic in nature;

this despite its application in the high-pressure environment of nursing (Ojiako et al., 2008, p. 6) which will be explored later in this section. A more pragmatic limitation for reflective practice is having sufficient time (Chronéer & Backlund, 2015, p. 7; Zundel, 2012, p. 21).

Bolton (2009, p.3) defines reflection as

> *'… a state of mind, an ongoing constituent of practice, not a technique, or curriculum element. Reflective Practice can enable practitioners to learn from experience about themselves, their work, and the way they relate to home and work, significant others and wider society and culture.'*

According to Coghlan and Brannick (2014, p. 13) Mezirow (1991) identifies three different types of reflection;

1. Content where you think about the issues and what you think is happening
2. Process where you think about strategies and procedures and how things are being done
3. Premise where you critique underlying assumptions and perspectives

These three forms of reflection need to be considered in formulating an approach to develop reflective practitioners. Zundel (2012, p. 112) states that reflection as Schön describes is Cartesian i.e. *'entails a Cartesian legacy of spatial and temporal separation'* in its underpinnings and tends to focus on what happened. Zundel (2012, p.115) proposes a Heideggerian view where past, present and future are interwoven This view brings the reflector into the present and our engagement with others as part of a shared world (Zundel, 2012, p. 117). Other authors such as Cunliffe (2016); Cunliffe and Jun (2005); Pitsoe and Letseka (2015) propose a need to become reflexive rather than just reflective.

For Cunliffe (2016, p. 741)

> *'This means examining our own assumptions, decisions, actions, interactions, and the assumptions underpinning organizational policies and practices and the intended and potentially unintended impact.'*

This definition differentiates between self-reflexivity and critical reflexivity which together encourage the challenge of both our own and other's assumptions as well as consequences of these assumptions. Cunliffe and Jun (2005, p.226) point out that the expressions reflection and reflexivity are often considered synonyms however, they have different ontological and epistemological assumptions. Reflection is a mirror image, an objectivist ontology, whereby we separate ourselves from '*an original reality'* (Cunliffe and Jun, 2005, p.226) which Zundel calls Cartesian. Whereas for reflexivity Cunliffe and Jun (2005, p.227) propose an unsettling of basic assumptions which enables more critical thinking about practice leading to new realities (Heidegger, 1966). This concept of reflexivity aligns with Mezirow's concept of three types of reflection discussed earlier. Reflection is mainly reactive, it requires thinking about events and experiences that have happened. However, if we consider what emotions we felt, what went well and not so well, what we may do differently in future, challenging assumptions this is proactive and reflexive. It is interesting to note that there are no contributions exploring the use of reflexivity in project management again a gap that this research contributes to.

A number of authors have proposed methods of developing reflective or reflexive practitioners and the following were applied as will be shown in Appendix C. Ayas and Zeniuk (2001, p. 61) suggest project based learning be utilised to create communities of reflective practitioners whereas Ojiako, Ashleigh, Chipulu, and Maguire (2011, p. 276) propose students become pro-active problem solvers and critical thinkers through engagement with problem based learning. This it is implied is a means of developing reflective and creative practitioners (Ojiako, Ashleigh, Chipulu, et al., 2011, p. 268). Others suggest group learning and communities of practice can assist in this

development (Ayas & Zeniuk, 2001; Córdoba & Piki, 2012; Gear, Vince, Read, & Leonard, 2003; Lee, Reinicke, Sarkar, & Anderson, 2015; Sense, 2009; Small & Walker, 2010). Other approaches are coaching, reflective practice, action learning and simulations (Crawford et al., 2006, p.727), whilst Turner (2016, p. 895) has used reflective reports with her Master's students to encourage reflective practice. Critical essays and self-reflexive journals (Cunliffe and Jun, 2005, p.237) also have merit.

The application of reflection in nursing is shown in practice by Gewurtz, Coman, Dhillon, Jung, and Solomon (2016); and Hodges (2011) and these authors demonstrate how problem based learning has been introduced into health professional education programs to facilitate reflection. Hodges (2011, p.7) states

> *'Successful nurses function effectively with adaptability, improvability, and interconnectedness, and can see emerging and unpredictable complex problems.'*

Much as successful project managers need to do (Atkinson et al., 2006; Jaafari, 2003; Thomas & Mengel, 2008). Hodges (2011, p.7) describes a pilot study of a problem based course for clinical nurses, and in an echo of Winter et al. (2006) and Crawford et.al., (2006) suggests that there is a requirement for *'…a significant change in prevalent but dated nursing education models for rising graduates.'* Replace nursing with project and it is clear both professions are facing similar issues in the development of reflective practitioners. The teaching profession also advocates the development of reflective practitioners (Hatton & Smith, 1995; Mirzaei, Phang, & Kashefi, 2014a, 2014b; Nowak, Borowski, & Liepertz, 2017).

Gewurtz et.al., (2016) surfaced eight principles associated with problem based learning which apply to active learning as below in Figure 2.10.

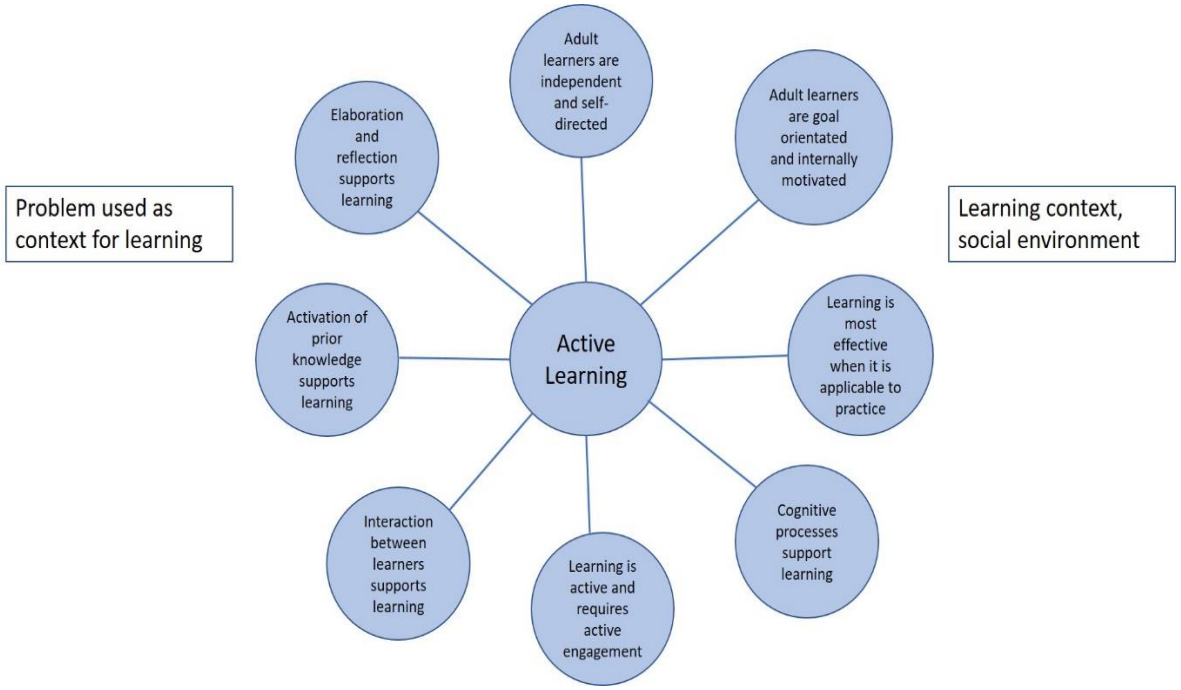


Figure 2.10 Eight principles associated with theories of teaching and learning that can inform active learning. (Adapted by author from Gewurtz et. al., 2016)

This section has explored the rationale for reflective practitioners and shown there is a shortage of contributions to the development of reflective practitioners in project management, especially in the workplace, consequently articles from the professions of nursing and teaching have been used to provide information on developing reflective practitioners in the workplace. In section 2.4.5 approaches to active learning will be explored as these approaches develop reflective practitioners. The application of these approaches is discussed in Appendix C.

2.4.4 Adaptive project performance

Wysocki (2010) writes of the need for adaptive project management and compares an adaptive project manager with a chef who has a mastery of the subject and can improvise rather than a cook who slavishly follows a recipe. This concept was explored in the Council and consequently a strong emphasis was placed on education throughout the project network including the commissioners as well as the executers. Cheng et al. (2005, p. 24) suggest *'…the unpredictability…places extreme demands on managers to respond flexibly to rapidly changing project circumstances.'*

The basic assumption in any codified methodology such as the Project Management Institute body of knowledge (Wu, Rose, & Lyytinen, 2011, p. 2), or PRINCE2 is that the project and its environment can be controlled and that

> *'…when unforeseen incidents or disturbances occur in the course of a project, the cause is seen in insufficient project planning, management, and control, individual misconduct of the project participants, or extraordinary events that cannot be expected or calculated under normal circumstances…'* (Böhle, Heidling, & Schoper, 2015, p. 2).

This belief in the causes of project failure does not allow for the interconnectedness of project activities nor the relationships inter and intra the project and leads to flawed solutions being applied in vain attempts to improve project performance. Cobb's paradox in which he states;

> *'We know why projects fail, we know how to prevent their failure -- so why do they still fail? (The Standish Group, 1996)*

echoes the above quote. Applying ever increasing levels of control is a manifestation of the *bigger hammer syndrome* (Senge, 2006, p. 61) and leads to further failure. It is not control which is required, it is adaptability, flexibility and an ability to improvise.

Buckle and Thomas (2003, p. 438) write of *'a strategy of adaptable readiness'* enabling project practitioners to be flexible and act with people and processes rather than getting action from people. Adaptability, as the term is applied in this thesis, is not synonymous with agile project management although some elements are common e.g.

1. As Winter et al. (2006, p. 646) state *'…it is people who deliver successful projects, not methods and tools…'* which lead to an emphasis on developing staff rather training them to use specific tools.
2. Collaboration, not just within the project team but across the whole of the project so that stakeholders were included.
3. Understanding that events will occur which will require plans to be changed, and being able to adapt to deal with the changes these events may cause.

The Agile Project Manifesto (2001) has the following values

1. Individuals and interactions over processes and tools c.f. 1 above
2. Working software over comprehensive documentation
3. Customer collaboration over contract negotiation c.f. 2 above
4. Responding to change over following a plan c.f. 3 above

Whilst I had studied Dynamic Systems Development Methodology (Summers, 2003) the model designed and introduced into the Council did not explicitly follow this methodology. However, in developing the LPMDP some of the concepts, as shown above, were introduced to the delegates and repeated throughout the LPMDP and other workshops.

2.4.5 Active learning

> *'A talent for following the ways of yesterday is not sufficient to improve the world of today'* (King Wu-ling, 307BC).

Training deals with historic events and then suggests that '*following the ways of yesterday'* is the way to deal with all current and future projects thus failing to account for the uniqueness of projects. Training is predominantly an example of transmissive delivery (Sterling, 2001) where the trainer imparts information to students who listen and are assessed on their ability to regurgitate this information and as previously explored this is the main way of educating project practitioners. Training assumes a right way to carry out an activity (Rodgers, 1986), assumes that there are high levels of certainty and agreement, which aligns with the Kurtz and Snowden (2003) view of the Simple domain in their Cynefin model. Delegates expectation is often that training is something which is *'done to them'* (Local Government Innovation and Development, 2008 - 2015; LPMDP Delegates, 2010, 2011, 2012), rather than learning being collaborative and co-created. Training is predicated upon experience assuming that the experience gained will be applicable in future situations and widely considered to be deficient in meeting the needs of project practitioners (Córdoba and Piki, 2012; Ojiako, Ashleigh, Wang, and Chipulu (2011) Ojiako et al., 2011). This frequently leads to a rush to action which was observed and considered to be an issue within the Council and its project performance. Dewey writes of a

> *'Zeal for doing, lust for action, leaves many a person, especially in this hurried and impatient environment in which we live, with experience of an incredible paucity, all on the surface. No one experience has a chance to complete itself because something else is entered into speedily. What is called experience becomes so dispersed and miscellaneous as hardly to deserve the name. Resistance is treated as an obstruction to be beaten down, not as an invitation to reflection. An individual comes to seek, unconsciously even more than by deliberate choice, situations in which he can do the most things in the shortest time.'* (Dewey, 1934, p. 46)

Training encourages this paucity of experience by introducing a vicarious element, trainers share their experience or most usually the experience of

others commonly packaged as best practice. This training is applied to practice and the results are frequently not as promised e.g. the project overspends. Trainers have control over course content and assessment is easy, simply test the retention or the ability to memorize as Jaros and Deakin-Crick (2007) contend. There is a place for training in certain areas; manual handling deals with how to lift items and there is accepted best practice due to a high degree of certainty and agreement about how to lift items by bending knees and using the thighs to provide the lift. Some authors argue that whilst technical skills may be trained the behavioural skills need a different approach (Crawford et.al. 2006; Winter et. al. 2006). In order to achieve good project performance project teams, need an ability to learn and adapt to the environment and events they encounter. The reported high levels of failure strongly suggest the training approach needs rethinking. To develop reflective practitioners, as the RPM Network propose, an alternative approach is required; active learning combined with time for reflection following the activities used in the active learning.

Active learning covers many different approaches to learning and development e.g. action learning (Crawford et al, 2006; Revans, 1983; Storm, Bussel, and Savelsbergh (2007)), project based learning (Ayas & Zeniuk, 2001; Grant 2002; Bell, 2010), problem based learning (Gewurtz et. al., 2016; Hodges, 2011; Waltz, 2014), inquiry based learning (Lee, 2004), reflective experiential learning (McLintock, 2004; Moon, 2004) and team based learning (Córdoba & Piki, 2012; Gear et al., 2003; London & Sessa, 2007), all of which require active participation in the learning rather than passive learning delivered in a transmissive manner. This is the key element, there is active participation which then means that the delegates have some practice to reflect upon. The activities conducted should be followed by a period of reflection so that reflection becomes habitual.

Cabrera and Colosi (2012, p. 5) argue that Knowledge = Information x Thinking (K= I x T), which is based upon Piaget's concept of constructivism (Cabrera &

Colosi, 2012, p. 12), and that in schools and Universities too often K = I, and that teaching is about *'…knowing, talking, sharing our experience…'* (Cabrera & Colosi, 2012, p. 6). This is essentially transmissive where one person provides information and the students/delegates are in receiving mode. For Cabrera & Colosi (2012, p. 5)

> *'Knowledge is actionable information: It is information you can use to solve a problem, navigate a situation, or figure something out.*

And

> *'…we are the only ones who can build knowledge for ourselves;*

These authors maintain that thinking is required for this, students need to reflect on the information received and experiment with it to develop their understanding. From this will come experience furthering their mastery of the subject. Hodges (2011, p7) suggests what is needed are environments '*…where learners actively build, rather than passively consume, knowledge'.*

Active learning has been applied in the education of nurses and teachers, and as Hodges (2011, p. 7) writes;

> *'Constructivist pedagogy fosters inquiry to solve unstructured problems, bridge current and future health care needs, and develop habits of exploring complex adaptive systems contextually as a necessary foundation for professional practice resilience in a complex health care environment.'*

By replacing health care with project, or indeed other disciplines, it can be argued that active learning is a necessity in producing reflective practitioners.

There is evidence to suggest that active and experiential learning can produce continuous learners (Deakin-Crick, 2007; Mintz, 2014; Moon, 2005; Waltz, 2014), with Jensen (2008, p. 6); and Long and Holeton (2009, p. 36) proposing the creation of learning environments where active learning can take place.

Storm et al. (2007) propose that action learning is a way to move practitioners from trained technicians to reflective practitioners albeit in tandem with training.

The following Table 2.4 from Sterling (2001, p. 38) details the differences between transmissive and transformative education in the realms of both policy and practice. Sterling (2001) suggests the design of learning activities be based upon the transformative elements shown in this table.

Education for change (Practice)	
Transmissive	**Transformative**
Instructive	Constructive
Instrumental	Instrumental/intrinsic
Training	Education
Teaching	Learning (iterative)
Communication (of 'message')	Construction of meaning
Interested in behavioural change	Interested in mutual transformation
Information – 'one size fits all'	Local and/or appropriate knowledge important
Control kept at centre	Local ownership
First order change	First and second order change
Product oriented	Process oriented
'Problem-solving' – time-bound	'Problem-reframing' and iterative change over time
Rigid	Responsive and dynamic
Factual knowledge and skills	Conceptual understanding and capacity building
Education in change (Policy)	
Imposed	Participative
Top-down	Bottom-up (often)
Directed hierarchy	Democratic networks
Expert-led	Everyone may be an expert
Pre-determined outcomes	Open-ended enquiry
Externally inspected & evaluated	Internally evaluated through iterative process, *plus* external support
Time-bound goals	On-going process
Language of deficit and managerialism	Language of appreciation and cooperation

Table 2.4 The differences between transmissive and transformative education (Sterling, 2001, p. 38).

Leland and Kasten (2002, p. 13) produce a similar table comparing an industrial model with an inquiry model and this shares many of the same terms as

Sterling's Table 2.4 above. These authors as well as Mezirow (1991, 1997); and Sterling (2001) suggest that teachers be facilitators and transformative rather than transmissive, and Ojiako, et al. (2011, p. 268) state

> *'Rather than instructors having the authority to transmit knowledge (Long and Holeton, 2009) educators need to become coaches and facilitators of learning. Consistent with both transformational and social learning theories, educators need to facilitate students studying project management to become creators of knowledge rather than simple knowledge recipients. Such demands require an emphasis on broader learning experiences.'*

Active learning encompasses many different approaches however all require the active participation of the learner rather than being trained in tools and processes. As discussed in section 2.4.3 Gewurtz et.al. (2016) determined that eight teaching and learning principles underpinned problem based learning however these principles can be applied to the design of most development programmes based on active learning approaches. Table 2.5 shows the principles with recommendations for their application in practice.

Principle	Recommendations
Adult learners are independent and self-directed	Include student-directed learning opportunities such as the establishment of personal learning objectives and identification of relevant learning strategies and resources. Allow opportunities for students to develop confidence in their own skills and knowledge by providing opportunities for self, peer and tutor feedback. Involve students in the development of the problems/scenarios, and/or offer choice in selecting the problems/scenarios that students will work on.
Adult learners are goal oriented and internally motivated	Provide a rationale for the curriculum design, specifically the principles derived from teaching and learning theories. Derive learning goals and objectives from what students want to and need to learn within the context of the scenario or problem.

	Provide regular feedback to encourage self-assessment and self-reflection.
Learning is most effective when it is applicable to practice	Ask learners to verbalise their clinical reasoning and clinical decision-making processes, and consider what they would do if they encountered the scenario described in the problem. Facilitate a discussion about the relevance of the content and the learning process to practice.
Cognitive processes support learning	Initiate explicit discussions with novice learners about their learning process, specifically differentiating between essential and non-essential information, low and high-quality resources, and how to synthesise information in a meaningful way. Prompt learners in the upper years of a AL curriculum to use strategies such as elaboration, abstraction and drawing inferences to support knowledge acquisition. Challenge learners in ways consistent with their level of study. For example, students entering a program should be presented with less complex scenarios.
Learning is active and requires active engagement	Evaluate students on the learning process in addition to content. This includes the ability to work with others, prepare and present their knowledge and reasoning and participate in formal self, peer and tutor evaluations. Students collectively set the agenda for class and are responsible for ensuring that each item on the agenda is met within the scheduled time. Tutors provide suggestions and encourage critical thinking as needed.
Interaction between learners supports learning	The AL process should be based on active discussion and debate with the problem as the stimulus. Foster a culture of mutual respect and collaboration as the tutor and students share their strengths and limitations over time. Group members will then be able to identify how they can support one another in the learning process. Prompt learners to share their knowledge and experiences, explain concepts to each other and consider alternative viewpoints.

Activation of prior knowledge and experience supports learning	Encourage students to provide potential explanations for the problem by drawing on their prior knowledge and experience. When setting learning objectives, students should articulate their previous understanding and demonstrate how their learning objectives build on this learning.
Elaboration and reflection supports learning	Elaboration and reflection on acquired knowledge and application of new learning to the problem being considered should be distinct steps and included in the AL evaluation criteria. Students should explain why the knowledge they obtain through their independent research is meaningful and applicable to the problem or scenario, as well as to their future practice as practitioners.

Table 2.5 Recommendations for active learning (AL) curriculum in project professional education based on eight principles of teaching and learning. (Adapted from Gewurtz et.al. 2016)

This is shown graphically in Figure 2.10 above. Figure 2.11, below, adapts Figure 2.10 with suggestions from the literature. I felt active learning to be necessary to developing reflective practitioners as there are activities to reflect on due to the active nature of the approach. Passive or static learning approaches such as training or lecturing do not provide action and thus reflection on practice is not possible. It is possible to reflect on the topic under discussion and whilst this can have value it is not reflection in or on practice as Schön, Cunliffe or Zundel describe. Developing reflective practitioners requires reflection on practice to become habitual, as well as challenging assumptions both our own and others.

Figure 2.11 Active learning options. (Author's work based on Gewurtz et.al. (2016)

Several authors suggest an approach to developing reflective practitioners is by creating Communities of practice (Ayas & Zeniuk, 2001; Córdoba & Piki, 2012; Lee et al., 2015; Sense, 2009; Small & Walker, 2010) and the next section reviews this concept.

2.4.6 Communities of practice

The notion of Communities of practice was conceived by Lave and Wenger (1991) whilst discussing what they called *'Legitimate peripheral participation'* which enable discussions about knowledge and practice (Lave & Wenger, 1991, p. 29). Wenger and Wenger-Trayner (2015) define Communities of practice as

> *'Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly.'*

Duguid (2005, p. 113) and Welch, Sinha, Nicolian, and Ward (2015) write of Networks of practice which Duguid states *'…designates the collective of all practitioners of a particular practice.'* The project management associations can be described as Networks of practice as common practices and tools are exchanged (Duguid, 2005, p. 113) through the bodies of knowledge. The Association for Project Management has smaller Specific Interest Groups clustered around geographic areas e.g. London, and subjects e.g. benefits management which may be considered as Communities of practice however, there is no follow-up of attendees of the Specific Interest Groups to ascertain if any of the new knowledge is applied into their practice, a key element of these authors contentions. Several authors suggest communities or networks of practice are important in developing reflective practitioners (Ayas & Zeniuk, 2001; Córdoba & Piki, 2012; Lee et al., 2015; Sense, 2009; Small & Walker, 2010; Welch et al., 2015). Welch et. al. (2015) see these networks as instrumental in realising benefits from projects and a further activity that is a beneficial product of Networks of practice is the sharing of learning from projects across the organisation (Chronéer & Backlund, 2015, p. 2). Additionally Communities of Practice can aid organisational learning as propounded by Wu and Fang (2010, p. 262) as well as meeting the requirement for succession planning that Crawford et.al. (2006, p. 724) suggest will help in addressing an aging workforce issue, one of the six implications for practitioner development.

2.5 Systems Thinking

In this section I will introduce the concept of Systems Thinking with some definitions and core concepts. Authors such as Ackoff (1971); Bateson (1972); Bertalanffy (1969); and Churchman (1968) have been very influential in Systems Thinking and Capra (1996) in his excellent book gives a history of Systems Thinking from its beginnings in biology enhanced by Gestalt psychology and ecology, through various iterations and enhancements. This is a wide and detailed account, (Langman, 2003, p. 117) however people were using systems approaches well before the 1920s the time at which Capra starts his narrative. In his book, Capra describes how the concept of systems stands in contrast to the Cartesian paradigm which held that

> *'The belief that in every complex system the behaviour of the whole can be understood entirely from the properties of its parts is central to the Cartesian paradigm. This was Descartes' celebrated method of analytic thinking, which has been an essential characteristic of modern scientific thought.'* (Capra, 1996, p.29)

This type of thinking is described as reductionist or Cartesian and focusses on the parts to the exclusion and detriment of the whole, as Checkland (1999, p. 45) suggests. This reductionism is described by Reynolds and Holwell (2010b, p. 6) as a trap of not using Systems Thinking; *'…avoiding the inevitable interconnectivity between variables…'* Threading throughout Capra's book is the concept of networks of relationships, networks as knowledge, networks as patterns of life and that Systems Thinking considers the whole as well as the parts and is contextual (Capra, 1996, p. 30). This is a concept which Cabrera and Colosi (2008; 2012, p. 62) emphasise in their Distinctions, Systems, Relationships, Perspectives model stating Systems Thinking accounts for both the part and the whole thus combining reductionism and holism, or analysis and synthesis, rather than thinking about each separately.

Many authors including Cabrera, Colosi, and Lobdell (2008); Capra (1996); Checkland (1999); Churchman (1968); Gharajedaghi (2006); Jackson (2003); Kim (1999); Meadows (2009) have defined systems. For this work Ackoff's, (1994, p. 175) definition as follows is used:

> *'A system is a whole consisting of two or more parts (1) each of which can affect the performance or properties of the whole, (2) none of which can have an independent effect on the whole, and (3) no subgroup of which can have an independent effect on the whole. In brief, then, a system is a whole that cannot be divided into independent parts or subgroups of parts.'*

Capra (1996, p.39) makes explicit the idea that a system is a conceptualisation, a mental construct with this definition

> '*… the concept of 'system' is used not to refer to things in the world but to a particular way of organising our thoughts about the world. [..] we consider the notion of 'system' as an organising concept …'*

Churchman states

> *'The systems approach begins when first you see the world through the eyes of another.'* (Churchman, 1968, p. 231).

This suggests looking with a different perspective so for example when Henry Ford commented *'They can have any colour as long as it is black'* he was viewing the production of automobiles from a manufacturer's perspective. Alfred Sloan at General Motors saw the world of automobiles from the consumer viewpoint; gave them a choice of colour and General Motors dominated the automotive industry (Gharajedaghi, 2006, p. 7). I consulted widely to appreciate stakeholders' perspectives of projects rather than that simply of the project manager. The *'…working on the basis of a single unquestioning perspective…'* leads to the second trap of not using Systems Thinking – dogmatism (Reynolds & Holwell, 2010a, p. 6). This trap of dogmatism at best constraints thinking so

that it is narrow in focus or at worst no thinking at all because the actor knows the *'right'* solution. The main corollary of both traps is neither unlearning nor learning, so that those who fall into the traps rely on acquired knowledge that may or may not be appropriate to the specific context.

According to Williams and Hummelbrunner (2011, p. 3) three features are common to all Systems Thinking approaches and methodologies:

1. *An understanding of interrelationships*
2. *A commitment to multiple perspectives*
3. *An awareness of boundaries*

These authors suggest that these features correspond to the developments within the field of Systems Thinking with a focus on interrelationships up to the mid-1960s, between the late 1960s to the late 1970s the focus was on perspectives and from the 1980s onward a shift in focus onto boundaries and who makes the decision about what is in and what is not in; thus, considerations of power come into play.

Systems Thinking has been called a meta-discipline by Checkland (1999, 2009), transdisciplinary by Jackson (2003, p. 13) and interdisciplinary by Cabrera, Colosi, and Lobdell (2008, p. 300). Each of these writers despite using slightly different terms define Systems Thinking as applying across different disciplines, so that in biology the human being can be viewed as a system, whereas in engineering an automobile is also constructed as a system. Checkland writes of Human Activity Systems (Checkland, 1999, p. 110, 314) and projects fall into this grouping, thus projects are systems and therefore systems theory applies.

Dalcher (2015, p. 2) suggests that Systems Thinking may be applied to project management by favouring a view that considers relationships and influences.

Chronéer and Backlund (2015, p. 3) also espouse the need to apply Systems Thinking to project management, whilst van der Hoorn and Whitty (2015, p. 721) suggest that project research and practice comes from a Cartesian paradigm and that projects and their management need to break free from this paradigm. The RPM network report also recommends applying Systems Thinking to project management research. The work referenced earlier from the RPM network recommended the use of a Systems Thinking approach to research into project management as this extract from their report shows,

> *'…and there are now increasing calls for new research to enrich project management theory with ideas and approaches from 'soft' systems thinking…'* (Winter and Smith 2006, p. 13),

These authors go on to state:

> *'In essence, conventional project management theory remains wedded to the epistemological/ontological foundations of the 1950s/1960s, with its emphasis on machine-like conceptions of organisations and projects, and realist assumptions about 'organisations' and 'projects' as entities existing 'out there' independently of the people involved.'* (Winter & Smith, 2006, p. 13).

The exploration of project performance at the Council moved away from a mechanistic emphasis on projects existing independent of the people with a deliberate change of perspective from that of the project manager onto the business manager and the achievement of business results (Morris 2000); (Shenhar et al., 2007, p. 4). Recently Dalcher (2014) in an echo of Winter and his colleagues, queries

> *'Is it time to rethink project management?'* and notes
> *'Success in the future would require better understanding of the context and deeper engagement with the business.'* (Dalcher, 2014, p. 4)

I contend that this research and the reflexive thinking undertaken throughout the research does rethink project management by applying different perspectives and proposes a view of projects which encompasses the business requirements as paramount in the system. This aligns the research with both direction 3, value creation, and 4, a broader conceptualisation as shown in Table 2.1, page 55, although a fuller discussion of these directions is beyond the scope of this work.

As can be seen from the above Systems Thinking is a way of looking at the whole and the parts and the interconnectedness, interrelationships and interdependencies between those parts rather than just the parts. I chose a Systems Thinking approach so that the whole could be considered from different perspectives and throughout this action research project the impact of changes in a part was considered from the viewpoint of the whole. I gained an appreciation of each stakeholder's perspective and this idea of stakeholder engagement permeates the whole research project by using an engaged scholarship approach (Van de Ven, 2007; Van de Ven & Johnson, 2006a). In addition, by taking a Systems Thinking approach to the project performance issue the whole was considered as well as the parts (Ackoff, 1971, p. 661; Cabrera & Colosi, 2008). Project management is often fragmented and focussed tightly on cost and time to the detriment of realising benefits – arguably the trap of dogmatism. A Systems Thinking approach requires a holistic view of the problem and the context and the interrelationships within and without the system. As Chapman writes

> *'The core aspects of systems thinking are gaining a bigger picture (going up a level of abstraction) and appreciating other people's perspectives on an issue or situation.'* (Chapman, 2004, p. 14)

The parts themselves may be systems and become sub-systems of the bigger system, e.g. the braking, steering and propulsion systems within a car.

I use an analogy of a violin and orchestra to illustrate Systems Thinking; and show the key properties of emergence, hierarchy and boundaries, see Figures 2.12 – 2.15.

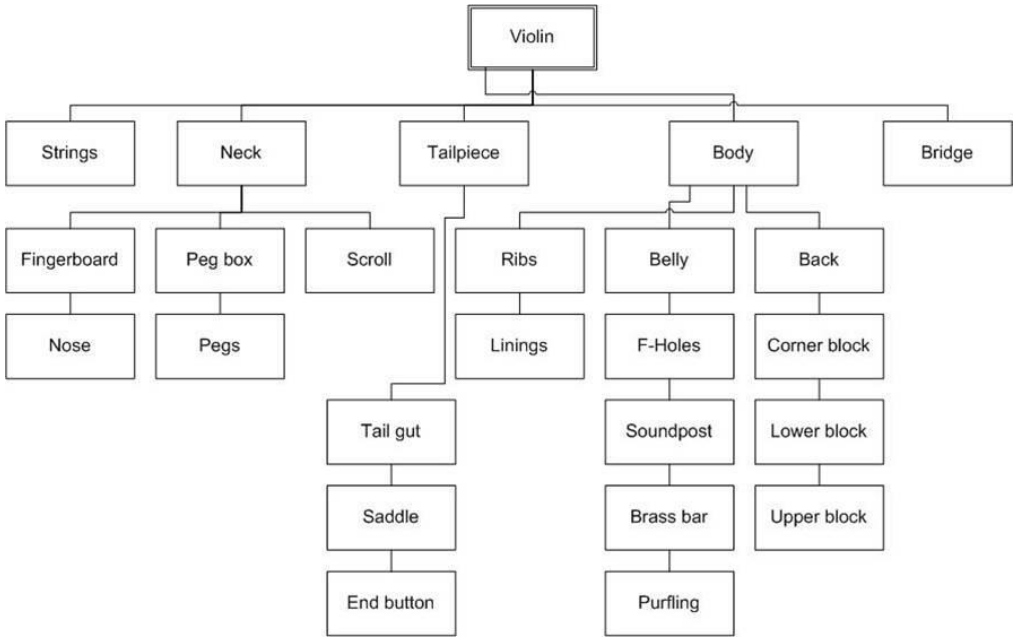


Figure 2.12 Violin as a Product breakdown structure. (Author's work.)

Figure 2.12 shows a representation of a violin broken down into its various parts as a product breakdown structure. Product breakdown structures can be used in project planning and descriptions and specifications of the parts written to define the scope of these parts. This graphic has been used in many presentations to different audiences totalling around 250 people and no more than a dozen recognised that Figure 2.12 depicted a violin. Whilst this does represent a violin the next figure shows the violin as most would recognise complete with the parts shown in situ.

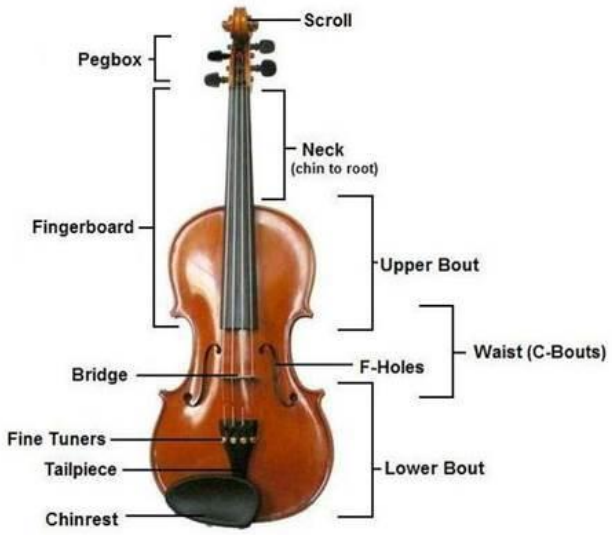


Figure 2.13 Violin showing the position of parts. (Credit: Sotakeit at the English language Wikipedia)

The violin is a system and in hands of a musician, music emerges from the bigger system formed by the instrument and the musician. The violin and the player can also be part of a bigger system such as a string quartet, or an orchestra. In an orchestra, the violin will also be part of the violin section and the string section thus creating a hierarchy. The orchestra together produces music as an emergent property; a property which can evoke many emotions in the audience, more emergence. The emergent property of music is also the value created for the audience.

Hierarchy is an important concept where the sub-systems nest inside each other and the boundary divides the system from the environment that influences it. This provides a perspective of events, patterns, and systems to study to solve problems. Continuing with the orchestra and violin theme, boundaries can be drawn around a violinist or the violin section, string section as well as the whole orchestra. In solving, any problem which besets the orchestra the boundaries

can be moved up and down the hierarchy as required to gain different perspectives of the problem as depicted in Figure 2.16.

Boundary judgements are made by the problem solver and are subjective in determining what is in the boundary and what is not. The problem solver also determines what is important or not per their *'appreciative settings'* (Vickers, 1963, p. 285; 1968b, p. 159), a concept which will be discussed further in the next section. As an example, if the emergent music was discordant the orchestra could be examined leading to a conclusion that the conductor was setting too quick a tempo. However, by narrowing the boundary to the first violinist, maybe the first violinist's instrument may have a hairline crack leading to the whole orchestra being off key if the first violinist sets the key. I am no musician so do not know if these examples are realistic however I trust the principle is explained. The next two figures show the boundaries drawn firstly around the orchestra and secondly just around the first violinist. A point to make is that boundaries are fluid as the perspectives of observers change over time (Mumford, 2006) with systems being dynamic rather than static. Some actors in a project are also actors engaged in other projects, e.g. specialist functions such as legal, and thus their appreciative settings may change and influence the other projects they are involved in.

Another aspect to consider is sub-optimisation; the optimisation of a part will lead to sub-optimisation of the whole (Deming, 2000; Machon, 1965; Seddon, 2008), this will occur if there is a concentration on one element of the orchestra the whole may become discordant. When comparing with projects it could be argued that focussing on cost and time budgets will lead to sub-optimisation with potentially planning, risks and stakeholder engagement for example receiving insufficient attention.

It may be illuminating to consider the value the orchestra create; music which is the emergent property of the sub-systems of the orchestra. However, an individual musician may consider value as being the enjoyment from playing an instrument well, or maybe the applause indicating the audience's enjoyment. This provides an indication that value depends upon the stakeholder's appreciative settings and is not necessarily an appropriate success criterion.

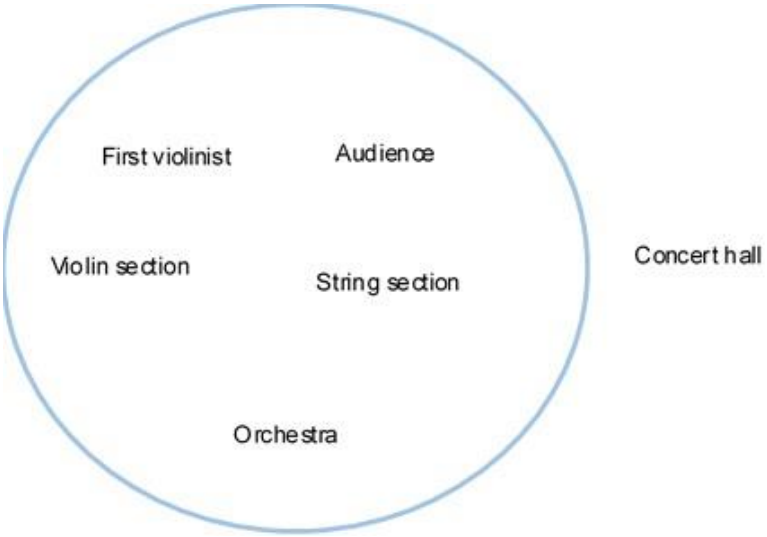


Figure 2.14 Boundary drawn around orchestra. (Author's work)

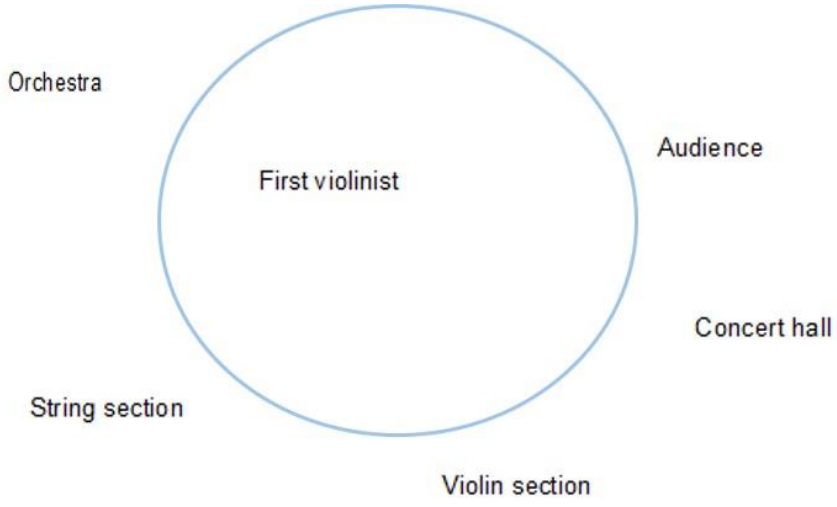


Figure 2.15 Boundary drawn around First violinist. (Author's work)

Using boundaries allows a funnelling effect as depicted in Figure 2.16, with analysis and synthesis moving both down and up the funnel and allowing the problem to be considered from differing viewpoints – Weltanschauung (Checkland, 1999, pp. 14, 319), allowing for richer learning and understanding.

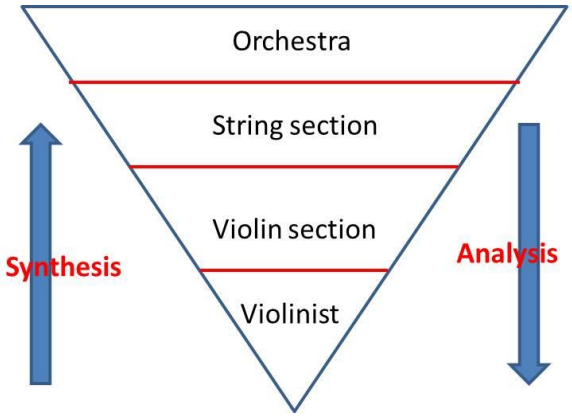


Figure 2.16 System funnel showing analysis and synthesis of problem within an orchestra. (Author's work)

A further point to be aware of is that the boundary is constructed by the person seeking to gain an 'appreciation' of the problem and is from their perspective or Weltanschauung. Some people will decide they know the cause of a problem and will not change their perspective nor consider constructing other boundaries, very much the trap of dogmatism. Boundaries are arbitrary and limiting however they can provide useful insights, in applying boundaries it is important to be aware of the boundary limitations and that there is a bigger boundary outside.

In this way, we can learn about the system by exploration, experimentation and experiencing which can be depicted as a spiral of learning; see Figure 2.17. In so describing learning and education the point that it is a journey and ongoing is brought into focus. Education is not a destination and it is important to be a continuous learner. The development programme which was introduced into the

council was based on the three elements of explore, experiment, and experience, the Triple E model. This model was applied in the dual cycles of problem solving and the research interest, providing a platform of thinking and rethinking reflexively throughout.

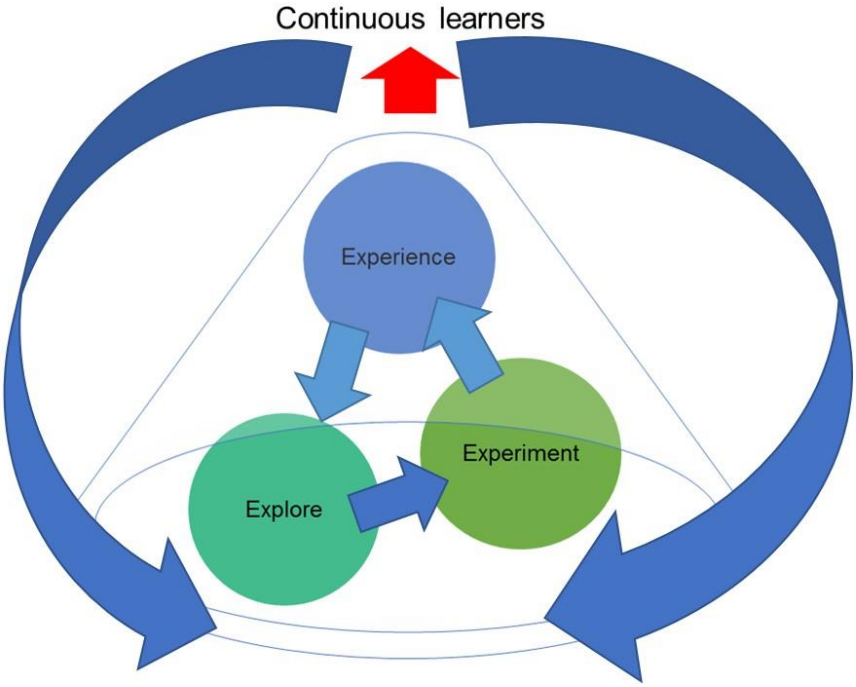


Figure 2.17 Triple E model (Spiral of learning). (Author's work)

A further aspect of systems to consider is that of information feedback loops, for as Forrester states,

> *'Systems of information feedback control are fundamental to all life and human endeavour, from the slow pace of biological evolution to the launching of the latest space satellite...everything we do as individuals, as an industry, or as a society is done in the context of an information feedback system.*' (Forrester, 1961, p. 15).

Meadows (2009 pp. 27 - 34) writes of reinforcing and balancing feedback loops whereas Stowell and Welch (2012, p. 23) write of negative and positive

feedback. For clarity in this thesis, I will use the terms reinforcing and balancing when discussing feedback loops. In a reinforcing feedback loop the feedback message acts on the input causing the output to move in the same direction, as shown in Figure 2.18.

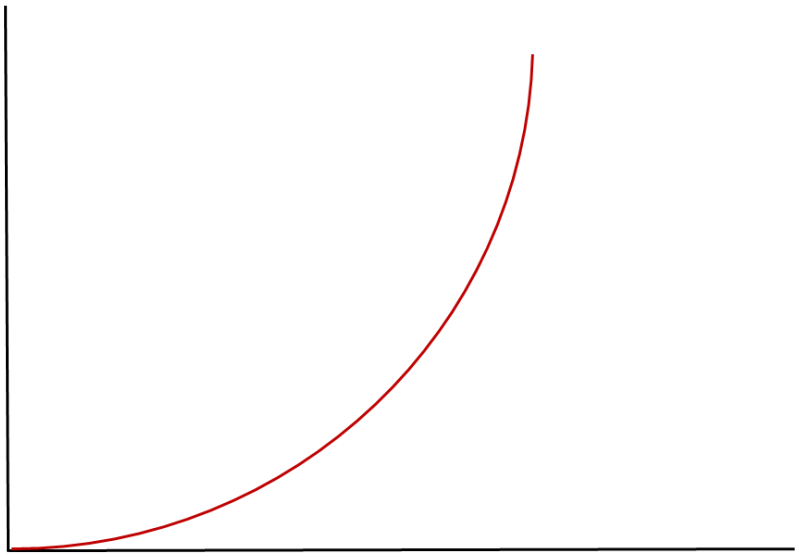


Figure 2.18 Reinforcing feedback loop. (Adapted from Stowell and Welch 2012, p. 24).

An example of a reinforcing loop is an interest-bearing account where the more money in the account the greater the interest, which is then added to the account thus increasing the interest. This is good for the investor; however not so good for people whose houses are free and clear of mortgage who release lump sums in their retirement through an equity release account. Within about 10 years, the amount owed has doubled. This situation will apply to any loan where there are no repayments.

Conversely, in a balancing feedback loop as feedback is received the input is pulled back toward the desired output as depicted in Figure 2.19.

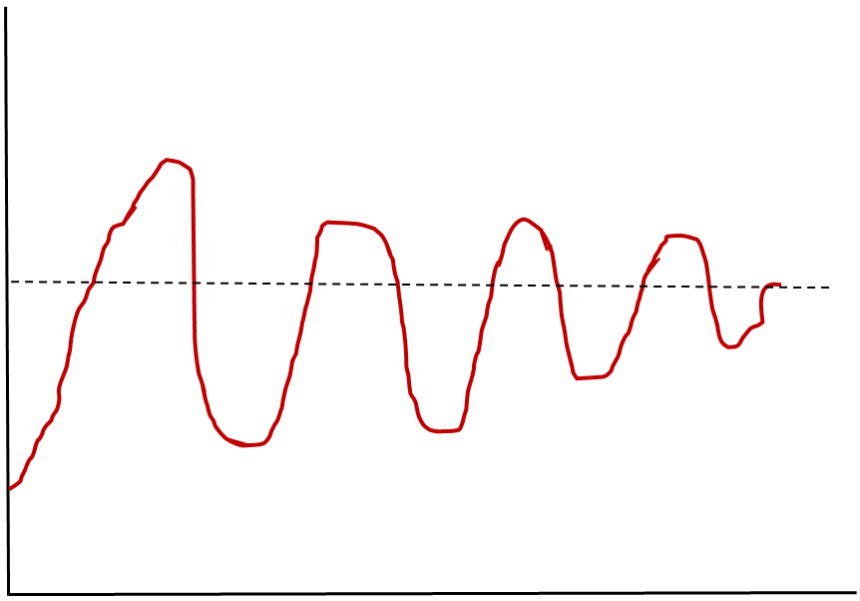


Figure 2.19 Balancing feedback loop. (Adapted from Stowell and Welch 2012, p. 24).

An example of a balancing loop is the thermostat in climate control systems, whereby a required temperature is set and the thermostat turns the system on or off as needed to maintain the set temperature. The examples given for both reinforcing and balancing feedback loops illustrate a single loop, however loops are frequently linked together with systems exhibiting many reinforcing and balancing loops acting upon them.

2.5.1 Appreciation

Vickers (1965, pp. 39 - 40; 1968b, p. 134) suggests the expression *'appreciation'* be used for the judgments of value and fact that we constantly make. From this definition of *'appreciation'*, he proposes an *'appreciative system', 'appreciative behaviour'* and *'appreciate settings'*.
An appreciative system is considered as a continual process of learning which he believes has three phases, *'information, valuation and action'* (Vickers, 1968b, p. 130); and is iterative, forming a spiral as each iteration expands our

learning and starts from a different level to the previous iteration (Bateson, 1972). Vickers (1963; 1968b, p. 164) writes of *'appreciative behaviour'* which he states

> *'… involves making judgments of value, no less than judgments of reality;'* (Vickers, 1963, p. 289).

For Vickers *'appreciative settings'* are the beliefs, values and experiences of an individual or society which colour the judgments made, and are unique to each individual and society. They are always latent and will develop as these judgements are challenged or confirmed by our experiences (Stowell & Welch, 2012, p. 81). Crawford and Costello (2000) building on Checkland and Holwell (1998b, p. 104) state individuals, groups and organisations are *'appreciative settings'* and further

> *'The perceived world can be changed by shifts in both thinking and action that may in turn change the perceptions of the appreciative settings.'*

However, as Vickers writes

> *'Events call constantly for new appreciations of the "situation". Other people's communications reveal schemata which confirm or challenge our own. And, apart from both these, the inner inconsistencies and incompleteness of our own schemata call us constantly to revise them. There are the occasions for appreciative behaviour signals, whether of match or mis-match which confirm or question at the same time as they reveal the current appreciative setting of the system'* (Vickers, 1963, p. 286).

The system being the individual, group or organisation and the settings the beliefs, values and experiences each has encountered, for as Vickers further states

> *'A man's capacity for appreciative judgment can then be described as depending on (i) the quality of his relevant mental faculties, which seem to vary widely between individuals; (ii) the materials at his disposal, whether in memory or externally accessible or derivable from these by further mental process and (iii) his current state of readiness to see and value things in one way rather than another, which I will call his appreciative setting.'* (Vickers, 1963, p. 284)

Vickers also discusses the judgment of *'importance – unimportance'*, stating these judgments are *'judgments of interest'* and that *'interest is the selector'*, and precedes reality judgments (Vickers, 1963, p. 290).

An appreciation needs to consider the system from multiple perspectives; a single disciplinary approach will view any issue from that viewpoint, (Bignell & Fortune, 1984, p. 165) so engineers will look for technical problems, IT help desk technicians frequently blame users, and solicitors look at legal issues. The example in Exhibit 2.1 gives an example of singular perspectives and judgements of interest as described by Ackoff and shows how judgments of interest can limit problem-solving.

Ackoff (1994, p. 186) gives an example of an 83-year-old woman who suffered a heart attack and died whilst climbing the stairs to her apartment. This information was given to some university professors who were visiting the apartment block. Each discipline had a different view on the cause; the professor of community medicine stating more doctors were needed, the professor of economics stressing the cost of doctors making house calls, with other professors adding their views. Ackoff then writes

'Was this a medical, economic, architectural, or social work problem? None of the above. It was just a problem. These adjectives connote the point of view, the mind set, of the person looking at the problem, not something about the nature of the problem.'

Exhibit 2.1 Judgments of interest as described by Ackoff (1994, p.186).

An important point to be accepted is the iterative and ongoing process of appreciation throughout the intervention, as events occur new appreciative settings are revealed. It is easy to believe one has gained an understanding and a solution to a problem however without iteration as Vickers proposes such a solution is unlikely to persist. A one-step process does not allow for continuous learning about the system and may lead to failure.

Vickers idea of an appreciative system of learning threaded throughout this work; the initial discussions with interested parties, my own research and experience of the problem and its context. The dual cycle of problem-solving and research were both subject to an appreciation, and subsequent reflection revealed how my own appreciative settings had changed over time. This will be covered in more detail in Chapter 7.

2.5.2 From problem-solving towards solution finding

'There are three kinds of thing that can be done about problems – they can be resolved, solved or dissolved.' Ackoff (1978, p. 39; 1981, p. 20)

In a later article Ackoff (1994, p. 185) states there are four different ways to approach problems, adding absolution. These are as follows:

> *Absolution* – ignore it and hope it goes away
> *Resolution* - a solution that is good enough; that satisfices (Simon, 1956, pp. 129, 136); that is adequate – a quick fix. This approach relies on experience and focusses on the uniqueness rather than the generality of a problem.
> *Solution* - optimises and involves a research approach. This approach relies on experimentation and focusses on the general aspects of a problem.
> *Dissolution* - changes the nature and/or the environment of a problem and is a design approach that idealises. This approach eliminates the problem, at least from the perspective of the dissolver. There is a focus on both the general and the uniqueness and whatever techniques and methods that assist are used.

It is interesting to note that Ackoff continued to think about problem-solving and did not stick in one position; he continued to reflect and learn and provided a richer explanation. This ability to continual challenge his own thinking characterises Ackoff even though it upset colleagues and adherents on occasions (Kirby, 2003). It is an important ability for humans to have although many people are stuck in a 'knowers' stance (Hinken, 2005, 2007) and do not continue to learn. Our learning needs to constantly evolve or we become stuck in one place, the 'knowers' stance (Hinken, 2007; Summers, 2012).

The absolution approach whilst an easy option, requiring neither thinking nor action, usually means that the problem will require dealing with later, albeit possibly by someone else. Resolution is dealing with the visible symptoms that may produce an initial impression that the problem is dealt with, it rarely is and often returns and is more difficult to deal with. Solution will require deep thinking, analysis and synthesis to find a solution that comes close to a best possible solution. Dissolution requires redesigning the environment or the nature of the problem and enables the system to perform better in future. This approach will require the investigation of differing viewpoints and for the problem solver to view the problem from the different viewpoints. Exhibit 2.2 provides an example of how Ackoff's approach may be applied.

I may develop a headache at 2:30 pm whilst at work and initially choose to ignore it. This is absolution. After about a week I decide to purchase some aspirin from the local pharmacy which takes the pain away, however the following day at around 2:30 pm the headache returns. This is resolution, the quick fix. I may then research other analgesics trying them out to rid myself of the headache. This is solution and the problem, my headache returns. Now I decide to take a systemic view and look at my environment and my work colleagues who do not seem to be experiencing headaches. So, I observe their behaviour and compare it with my own. It becomes clear that a difference is in our consumption of liquid and taking lunch breaks. I do not take a lunch break nor do I drink any liquids during the day, whereas my colleagues drink plenty and take a break. I therefore decide to drink more and take a lunch break and my headaches are dissolved.
Achieving dissolution requires a systemic approach with a redesign of the system so that the problem is eliminated. This was done in the above example by drinking fluids and taking breaks. However, the pharmacist now has a problem; how to replace the sales of analgesics I no longer require.

Exhibit 2.2 Ackoff's problem-solving example.

Dissolution is the most effective approach and should always be attempted, this it can be argued is a rational and logical conclusion. Dissolving a problem removes it altogether, at least from the solver's perspective as other people may have problems because of the dissolving. As already stated absolution requires minimal effort and resolution requires little thinking or effort to give the appearance of dealing with the problem. If the problem is only resolved, then the solver or manager can resolve it again when it reoccurs. It may be that is what they want, because they can continue to resolve problems getting a reputation as a problem solver, staying employed and often recruiting additional staff continually resolving the same problem. For some resolution is a more rational approach for these reasons.

To improve project performance within the council I believed a different level of thinking was required and an understanding of all stakeholder's expectations and requirements needed to be considered, for as Ackoff (1994, p. 187) states

> *'Therefore, problems should be viewed from as many different perspectives as possible before a way of treating them is selected. The best way often involves collaboration of multiple points of view, a transdisciplinary point of view.'*

It is also important to understand the problem albeit not focus on the problem, it is a dissolution that is sought. It is necessary to look beyond the problem so that dissolution may be achieved as will be considered in

2.5.3 The Solutions Focus

The Solutions Focus is an approach designed by Jackson and McKergow (2007) where the focus is on the solution rather than the problem. This methodology uses a Systems Thinking approach and is derived from the fields of psychotherapy and counselling where it is known as Solutions Focussed

Brief Therapy or simply Brief Therapy, founded by Berg and de Shazer (Langman, 2003, p. 32; McKergow & Clarke, 2007, p. 2). The methodology is increasingly being applied in management work as shown by these authors.

The concept behind Solutions Focus is rather than analyse and focus on a problem, a better way forward is to focus on a solution and *'…defining and acting on what is wanted and what is better'* (Jackson & McKergow, 2007, pp. xv - xvi). It can be argued that it is better to focus on what is needed which is not always the same as what is wanted. There is an emphasis on what is wanted as revealed in an interview given by Berg & de Shazer, (1998), albeit as part of working and communicating with their patients. Engaging with the patient is critical and that the solution needs to be owned by them rather than forced upon them by the therapist.

This is also important when applying Solutions Focus in management work so that all stakeholders have input and are helped to take ownership of the solution. It is also made clear that the solutions leading to a better future are unique to the individual or organisation, rather than so-called best practice being applied arbitrarily.

The Solutions Focus is based on three key ideas originally introduced by Bateson and his team at the Mental Research Institute in Palo Alto, California that are

1. *If it ain't broke, don't fix it.*
2. *Stop doing what doesn't work and do something different.*
3. *Once you know what works, do more of it*. (Jackson & McKergow, 2007, p. 233)

Jackson and McKergow (2007, p. 235) state that Berg and de Shazer reversed ideas 2 and 3 moving the focus onto success rather than difficulties. There is a

potential issue with item 1 in that it may be perceived that a system is not broken so therefore does not require fixing despite the results being disappointing. An example is the Project Management Associations, the authors of PRINCE2 and the UK Government's insistence on retaining a project definition and processes which focus on delivering an output to cost and time targets. This despite the, albeit, circumstantial evidence that this approach leads to poor results and minimal benefit realisation it continues to be pursued with rigour. Even when it is accepted that the system needs fixing there is a tendency, in the project world at least, to keep doing what doesn't work in the vain expectation that eventually it will – a reinforcing feedback loop.

A key technique used in the Solutions Focus is known as *'the miracle question'* (Berg, 2003; Jackson & McKergow, 2007, p. 32; McKergow & Clarke, 2007, p. 9), which asks

> *'…suppose there was a miracle tonight and the problem disappeared – what would be the signs tomorrow that would let you [know] that the miracle had happened?'* (McKergow & Clarke, 2007, p. 9) [Author added word in square brackets]

The miracle question may be phrased differently in practice however it provides a foundation for questioning how the better future and potential solution will look to the actors involved. The question helps the actors visualise the changes that the better future will bring about. This leads the facilitator of the change intervention to state concrete actions that can be taken to achieve the desired solution. This is a technique which enables the first step to be taken towards the solution and is iterated along the journey. Figure 2.20 provides a model of The Solutions Focus.

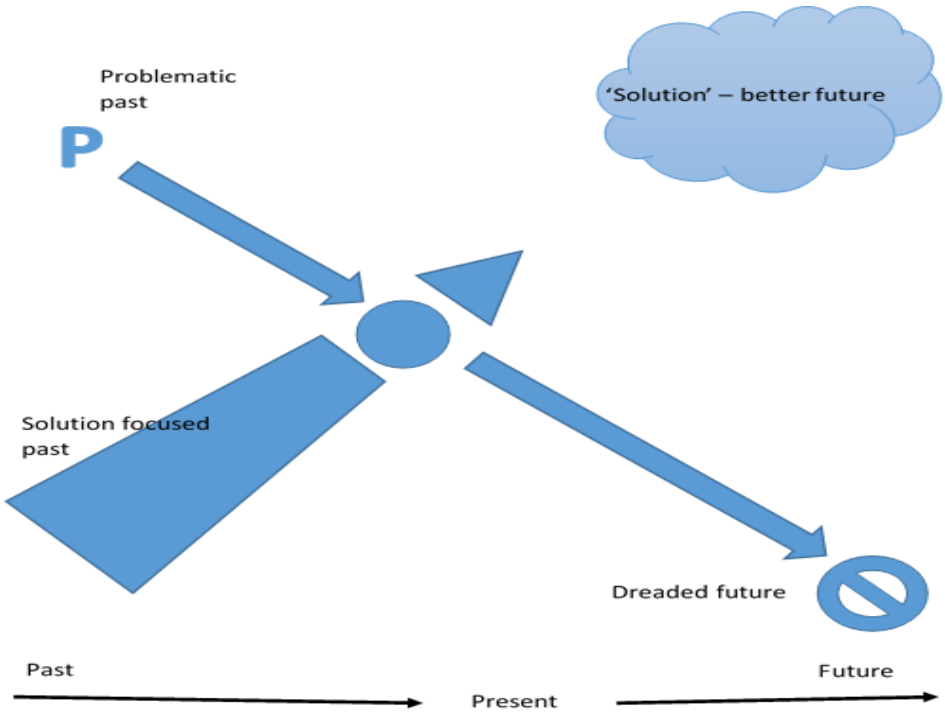


Figure 2.20 Solutions Focus model (latterly Albert model). (Jackson & McKergow, 2007, p. 3; McKergow & Clarke, 2007, p. 5).

There are additionally six principles which form a mnemonic SIMPLE and these are:

1. *Solutions – not problems*
2. *In-between – not individual*
3. *Make use of what's there – not what isn't*
4. *Possibilities from past, present and future*
5. *Language – clear, not complicated*
6. *Every case is different – beware ill-fitting theory* (Jackson & McKergow, 2007, p. 10; McKergow & Clarke, 2007, p. 5)

The basic concept of the Solutions Focus approach is as McKergow and Clarke (2007, p. 5) state,

> *'…this distinction between narratives relating to the problem – what's wrong – and the solution – what's wanted. Most approaches to change seek to discover what to do next by examining the problem and seeking*

> *to address it. This works well for broken motor cars and washing machines, but less well for people and organisations.'*

The Solutions Focus is not *'simply positive thinking'* (Jackson & McKergow, 2007, p. 8), it is a questioning and thinking approach leading to action which complements the dual cycle action research of this thesis. The approach is different from best practice and Jackson and McKergow (2007, p. 8) suggest that

> *'The differences between your personal makeup and that of other top performers may be just significant enough to make it harder to replicate their results than to produce your own.'*

The approach is concerned with finding better futures that fit the organisation rather than an imposed best practice solution and makes allowance for the appreciative settings of the organisation and the people involved in the intervention.

Applying Solutions Focus does require high levels of good communication and an ability to build co-operation on the part of the facilitator of the approach (Williams & Hummelbrunner, 2011, p. 195). Finding these better futures will assist in dissolving the problem and will often involve a design approach as articulated by Ackoff and shown earlier in this chapter.

It should also be emphasised that the Solutions Focus approach does not ignore the problems rather it turns the focus onto a solution for as Berg said

> *'Just because I'm solution focused doesn't mean I have to be problem phobic.'* (Berg & de Shazer, 1998)

How individuals or organisations have arrived at positions which need changing should not be ignored nor dwelt upon. An appreciation of what works and what

does not is required and this will be derived from the problem. In seeking the best of what has been the Solutions Focus has some similarities with Cooperrider's Appreciative Inquiry (Cooperrider & Whitney, 2005), however Solutions Focus will also seek to appreciate what does not work, in seeking actions to move forward to a better future.

A further point about this approach is its pragmatism, and links with the philosophical paradigm I am following, although the authors do suggest a series of steps they are not prescriptive and they state

> *'We encourage you to focus on your own practices…'* and
> *'Discover your own solutions that fit – even if they aren't in the textbooks. Or on the curriculum at business school. Or known to you – yet.'*
> (Jackson & McKergow, 2007, p. 8)

This approach encourages novel approaches rather than rely on best or good practice which often will not fit the environment the organisation is in. A following section will consider a model for sense making in different environments, Cynefin (Kurtz & Snowden, 2003), which will propose that novel approaches are required for complex and chaotic domains; environments which are uncertain and ambiguous, when best practice and good practice approaches are not suitable. The Solutions Focus is a pragmatic means of finding solutions and synthesised with Vickers' appreciation and Ackoff's problem solving concept can be a powerful way of dealing with issues.

2.5.4 Vanguard

The Vanguard method was designed by John Seddon and introduced to the public sector from around 2000; in the early days the Vanguard method was marketed as lean systems thinking and this term is used in the National Homes Consortium (2006); and The Office of the Deputy Prime Minister (2005) case

studies. Lean as a term is no longer used by Seddon (Vanguard News April 2010), however Vanguard was branded as Systems Thinking until mid-2011. In fact, so well entrenched has Vanguard become that in the UK local government, Systems Thinking is synonymous with Vanguard (Local Government Innovation and Development, 2009 - 2014).

The Vanguard method is stated as being based on Deming (1982) Ohno (1988) and Ackoff (1978) and several case studies have been published reviewing its usage. The Social Housing Service within the Council were users of Vanguard and during the early cycles I conducted research into the methodology including an interview with Seddon in January 2011. My exploration of Vanguard suggested some strengths and weaknesses and that the methodology was not Systems Thinking as it falls into a trap of non -systemic thinking – dogmatism, using a singular perspective (Reynolds & Holwell, 2010, p. 6; Summers, 2011b). One major strength of Vanguard is its focus on purpose, in designing a system the purpose needs to be explicitly defined, Vanguard stating the purpose being designing the system against customer demand, however defining the customer is difficult in many cases, e.g. the UK probation service. The Vanguard method whilst good at dealing with simple issues such as housing benefits struggled with more complex issues (Kurtz and Snowden, 2003; Summers, 2011b). Finally, I decided that building a model using the Vanguard method was not valid for the organisation partly because tensions and alienation between those involved in the process and those on the outside are reported, (Jackson, Johnston, & Seddon, 2008; National Homes Consortium, 2006) although understanding the purpose of projects became a key belief as this work progressed. In addition, the method was far from universally accepted within the Council.

2.5.5 Cynefin

Kurtz and Snowden (2003) introduced the Cynefin model as a sense making device which challenges the assumption that environments are stable and ordered. The environment in which management must operate is subject to volatility, uncertainty, complexity and ambiguity and different approaches are needed to match the environment. The model is split into five domains which are:

1. Simple
2. Complicated
3. Complex
4. Chaotic
5. Disorder

This is depicted in the following figure

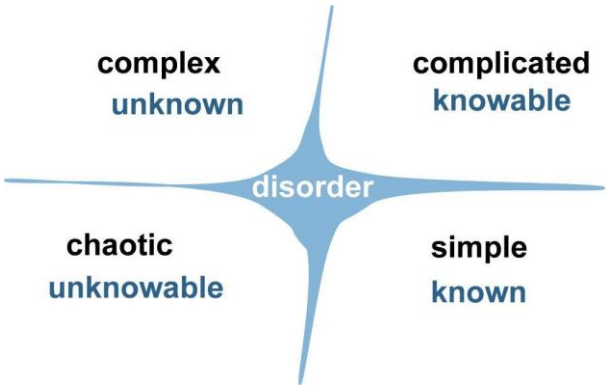


Figure 2.21 Cynefin model. (Kurtz & Snowden, 2003).

The model helps determine the approach to take and make sense of each of the different environments. In practice disorder is ignored although some authors show chaos as a continuum from disorder to order or chaos to order (Remington & Pollack, 2007, p. 9). The sense making helps determine the domain and the approach to problems within that environment. Projects will move through and around each of the four domains of simple, complicated,

complex and chaotic. The following diagram shows the four quadrants and the approach suggested for each. This suggests that best practice is applicable only in the simple domain, where there is a high level of knowledge with linear cause and effect patterns. Some projects will operate mainly in the simple domain however, an adaptive approach is required for successful project commission and execution in the other domains.

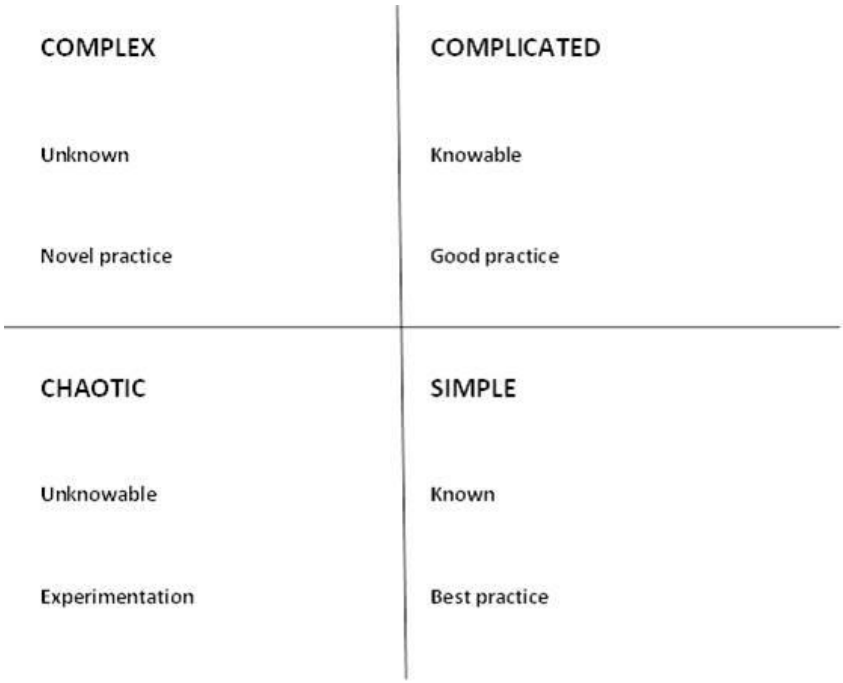


Figure 2.22 Based on Cynefin model. (Kurtz & Snowden, 2003).

Cynefin is a means of exploring how people learn and perceive situations, an epistemology. There is also an ontological perspective of understanding the problem environment that determines the methodology to use (Snowden, 2005, p. 4; Williams & Hummelbrunner, 2011, p. 164). I have applied the Cynefin model as way of explaining to people that different environments exist and require different approaches, which is the ontological approach that Snowden uses. Stacey's view of the four domains was shown in Figure 2.3 where the axes show certainty and agreement. Therefore, the simple domain exhibits a

high level of certainty of what is required and a high level of agreement as to that certainty therefore, best practice processes can be applied. It can also be argued that many projects will move through the four domains and that a high degree of adaptability is thereby required in project execution.

Applying Cynefin to project environments suggests that practitioners need to be aware of the different environments encountered throughout the project lifecycle to deliver projects successfully. It should be stressed however that both Cynefin and the adaptation from Stacey are models which are representations which help us to attempt to classify and make sense of the subject. Models are essentially wrong as the British statistician George Box points out; '*Since all models are wrong the scientist cannot obtain a "correct" one by excessive elaboration'* (Box, 1976, p. 792) and *'Essentially, all models are wrong, but some are useful'* (Box & Draper, 1987, p. 424).

2.5.6 Summary

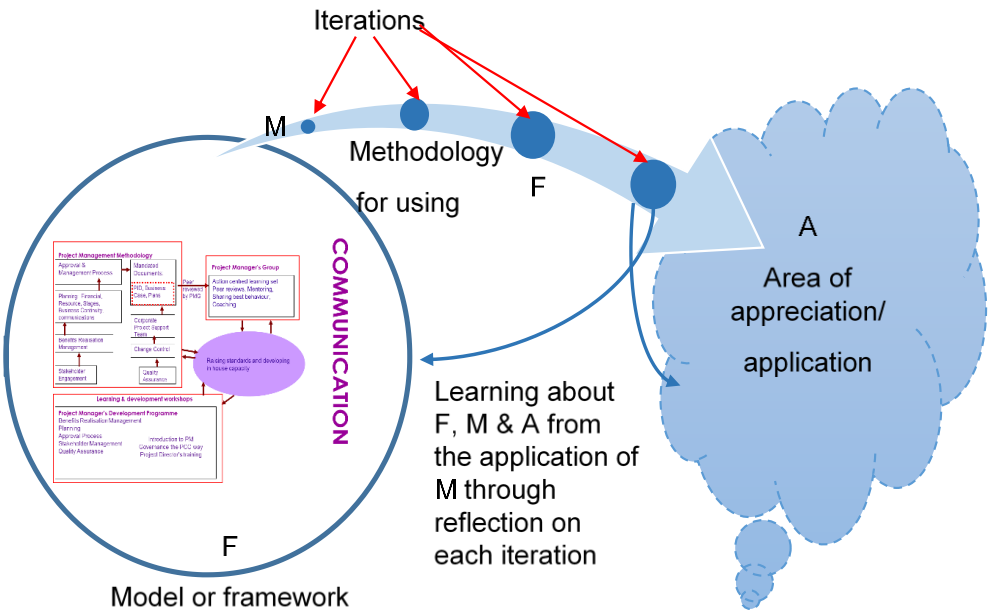
This section has provided an overview of Systems Thinking, the rationale for a systemic intervention and the approaches used in the intervention investigated in this thesis. These sections have explored the application of a problem structuring approach which synthesised Vickers' (1965, pp. 39 - 40); (1968, p. 134) concept of appreciation, Ackoff's (1994, p. 185) approach to dealing with problems with the pragmatic Solutions Focus (Jackson and McKergow 2007) to analyse the problem and through synthesis of these approaches to find a solution. The synthesis of these concepts led to the application of a problem structuring approach which involved three elements; explore, experiment, experience. Neither Vickers nor Ackoff propose prescriptive methods or methodologies; rather that thinking is required, both analysis and synthesis, specific to the context being studied. Furthermore, as Stacey (2007, p. 40) states

> *'Systems thinking essentially seeks to understand phenomena as a whole formed by the interaction of parts.'*

There is in many ways a duality with Systems Thinking, on the one hand representing real world entities, ontology and the other a method for learning and inquiring, epistemology. This research uses both with the implemented model providing a potential solution for the council's poor project performance, the ontology and as an epistemology to gain knowledge through application of systems to the problem area. These distinctions have been described as Systems Thinking, the epistemological tradition and thinking about systems, the ontological tradition (Cabrera et al., 2008, p. 301; Reynolds & Holwell, 2010a, p. 7). This distinction is sometimes referred to in terms of hard, physical or optimising and soft, learning, systems, (Checkland, 1985; Stowell & Welch, 2012). There is nonetheless agreement that systems are constructs and a way of learning about and improving problems. This duality is a construct itself and whilst there is a need to be mindful of this, too much theorising will impede using the concept in practice. In this research project Systems Thinking was used to learn about the problem facing the Council, that of poor project performance. A model was designed and implemented by gaining an appreciation of the problem and throughout the iterations the concept of gaining an appreciation was applied to refine the model and the main elements. Systems Thinking was used both as an

> *'…ontology (truth claim) and epistemology (method) for addressing different questions'* (Van de Ven & Johnson, 2006a, p. 803).

Figure 2.23 shows a representation of this approach, with the model F being applied to the council's project performance utilising appreciation as a methodology for learning about each of the three components.



F = Framework, M = Methodology and A = Area of appreciation/application

Figure 2.23 Research model. (Adapted from Checkland 1985, p. 758).

Section 2.7 will introduce the research approach of engaged scholarship (Van de Ven, 2007) and action research (Lewin, 1946) applied within the organisation (Coghlan, 2001, 2007; Coghlan & Brannick, 2014).

Walsham (2006, p. 320) argues *"…knowledge of reality, including the domain of human action, is a social construction by human actors.* This concept is crucial in the application of Systems Thinking and underpins this research which is interpretive and pragmatic.

2.6 Projects as systems

In section 2.2 I proposed projects be viewed as a system and applying Ackoff's definition of a system to projects demonstrates that projects can be constructed as wholes with parts which affect the properties or performance of the whole. There is a hierarchy of sub systems for monitoring, project tasks and management together with feedback loops, with emergent properties all bounded within the organisational environment although divorced from neither the internal nor the external environments. Traditional project management perceives this as a closed system within which a project may be managed (see Figure 2.24 and compare with Figures 2.3 and 2.14), direction 1 of the RPM network work proposes that the system is dynamic and properties emerge.

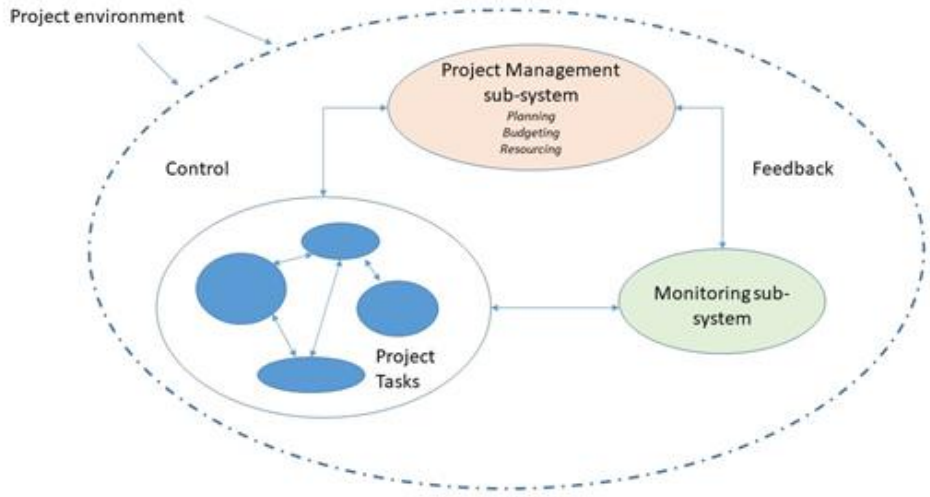


Figure 2.24 Projects as closed systems. (Welch and Summers, 2017)

Figure 2.24 represents a static view of a phenomenon that is dynamic and as per Checkland and Poulter (2006, p.56) organisational behaviour subsists as an accommodation between differing perspectives of stakeholders. Thus, as

Mumford (2006) suggests an open systems perspective on organizations is preferable, for any organisation subsists from moment to moment as an emergent property of the interactions among the people who are its members (Bednar, 2000; 2007). Projects do not exist in a vacuum and are themselves an open -system in a larger system. Examples of external events are; the liquidation of a contracted company or the discovery of Japanese knotweed which needs mitigation. Internally changed staff due to a rotation policy, a project may need to accommodate different specialist skills over its lifecycle. To explore and investigate the observer draws a boundary as discussed earlier in section 2.5. Boundaries are also used to define the system of interest and the reader is referred to Figure 2.2 where it was suggested that current project definitions draw a very narrow boundary so that four parts of the life cycle become someone else's responsibility, including the realisation of benefits; the purpose for commissioning the project.

Throughout this research projects were considered as human activity systems and the theories from section 2.5 applied in the dual cycles. The concept of projects as systems and therefore systems theories applying is exciting and worthy of further investigation and discussion, however this is beyond the scope of this thesis and will be pursued later.

In December 2016, the Association for Project Management announced a new Specific Interest Group for Systems Thinking (Association for Project Management, 2016), which suggests that a new way of thinking about projects is being pursued, at least through the Association for Project Management. This is a move to be welcomed and suggests discussion will be forthcoming on the concepts introduced above.

2.7 Research approach

The next two sections provide a review of engaged scholarship (Van der Ven, 2007), action science and action research (Argyris, Putnam, & Smith, 1985) as the main research methods applied in this research.

2.7.1 Engaged scholarship

Van de Ven (2007, p. ix) defines engaged scholarship as

> *'… a participative form of research for obtaining the advice and perspectives of key stakeholders (researchers, users, clients, sponsors and practitioners) to understand a complex social problem.'*

He argues that engaged scholarship produces richer knowledge than if just a single researcher were involved in the research, and that there is a gap between practice and theory (Van de Ven and Johnson, 2006a) which engaged scholarship can help fill. This concept is developed by Schön (1983, p. viii) in which he writes of an *'epistemology of practice.'* He further suggests a *'…widening rift between the universities and the professions, research and practice, thought and action'* (Schön, 1983, p. viii). However, Mosser, (2010, p. 1077) suggests this gap is more from the academic perspective; and suggests that this is due to the differing worldviews of scholars who deal with puzzles and practitioners who solve problems (Mosser, 2010, p. 1079). He also claims that puzzles do not require quick actions nor solutions whereas problems *'demand solutions'* and that *'…policymakers…require a satisfactory, but not necessarily ideal, solution'* (Mosser, 2010, p. 1079). Weick, (2001, p. S71) suggests the gap is *'as much a product of practitioners wedded to gurus and fads as it is of academics wedded to abstractions and fundamentals.'*

Ackoff (1978, p. 6 & 9) considers puzzles to be problems which cannot be solved due to assumptions or self-imposed constraints. Puzzles such as crosswords and Sudoku usually have a single correct answer due to the constraints imposed by following the rules for solving the puzzle. Problems potentially have multiple solutions which range in efficacy and are often contextual so that a solution in one environment will not be optimal in a different context. For example (Flyvbjerg, Bruzelius, & Rothengatter, 2003, p. 47) state that there is widespread exaggeration of expected benefits and under estimation of costs, which these authors term deception and lying leading to project failure which they claim is due to an intentional act of deception. Conversely Tversky and Kahneman (1974) suggest that such deceptions may be unintentional because of cognitive biases. Figure 2.24 suggests that Flyvbjerg's viewpoint and that of Tversky and Kahneman be viewed as a continuum between deliberate and unintentional bias.

Figure 2.25 Continuum between deliberate deception and unintentional bias. (Author's work)

Academics may well research this at length, however practitioners are more concerned with how to deal with business cases which are inaccurate. Whether it is intentional or unintentional is, at least initially, largely irrelevant to business executives; it is the consequences of the bias which concern them, that is failed projects. The academics are interested in solving the puzzle perfectly (Mosser, 2010, p. 1079) whereas the practitioner wants to dissolve or at least solve the problem and is interested in the result.

Engaged scholarship is proposed as a way of closing this gap and my research applies this concept to a thesis in a practical situation. Van de Ven and Johnson

(2006a, p. 802) suggest that by coproducing knowledge; theory and practice can be advanced. Dewey (1986, p. 19) states *'There is no such thing as educational value in the abstract.'* And as Susser (1968) states:

> *'To practice without theory is to sail an uncharted sea; theory without practice is not to set sail at all.'*

Checkland and Scholes (1990) add

> *'…theory which is not tested out in practice is sterile. Equally, practice which is not reflective about the ideas upon which it is based will abandon the chance to learn its way steadily to better ways of taking action. Thus, theory must be tested out in practice; and practice is the best source of theory. In the best possible situation the two create each other in a cyclic process in which neither is dominant but each is the source of the other.'*

This is shown graphically in Figure 2.26 below, which Winter, et al. (2006, p. 652) adopted and refined as their action research model. These authors suggest that an approach synthesising theory and practice is most appropriate when intervening in human affairs and is both pragmatic and systemic which is the approach taken my research.

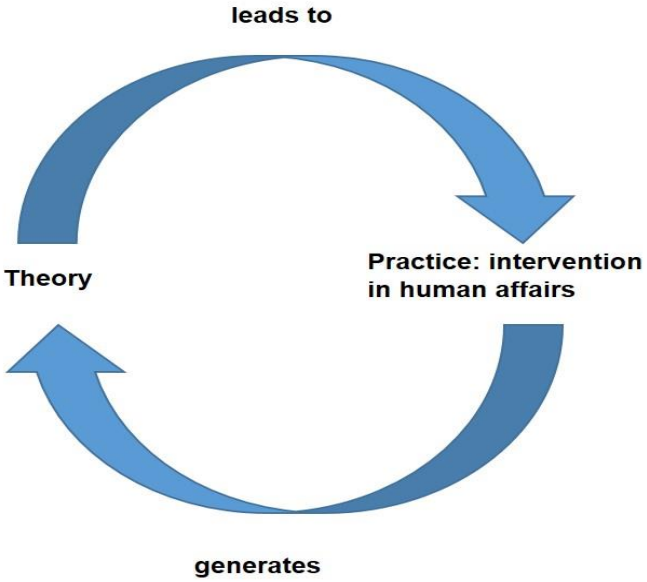


Figure 2.26 Theory leads to practice and practice is the source of theory with neither prime; and both generating knowledge. (Based on Checkland, 1985, p. 758; Winter, et al., 2006, p. 652)

The concept of engaged scholarship is challenged by McKelvey (2006, p. 822) who contends *'It's a nice dream, but not a solution; bias, disciplines, and particularism remain.'* He also uses a food chain analogy and makes the valid point that organisations are not interested in Gaussian averages, rather they are looking at the extremes: being very good or dealing with the very bad (McKelvey, 2006, p. 829). This author seems to believe that research should concentrate on quantitative data and that the Van de Ven model produces bad science. This raises the issue of whether management is a science and whether quantitative data alone is appropriate in evidencing management theory, a subject beyond the scope of this work. McKelvey also states that organisations are unlikely to share any knowledge as it impacts on their competitive edge.

As Van de Ven and Johnson (2006b, p. 831) state in their rebuttal of McKelvey '*Of course, bias, disciplines, and particularism remain—they are present in any form of inquiry.*' Humans are not objective, by our very nature we are subjective

and filter our experiences through our own appreciative settings, it is by using different and multiple perspectives we can learn and increase our knowledge – as described in Chapter 2 on Systems Thinking. Laing (1971, p. 23) argues that theory without practical knowledge is dangerous as he says

> '...*people who do not actually do the practical work themselves, but who feel they are in a position to theorize about it. This is a dangerous state of affairs.'*

Both Martin (2010) and Mathiassen and Nielsen (2008) in different disciplines and countries, one public policy in the UK, the other Information Technology in Scandinavian countries, suggest that engaged scholarship can produce good research.

The model shown in Figure 2.27 shows an adaption of Van de Ven's engaged scholarship diamond model demonstrating engagement in each of four stages throughout the research spiral.

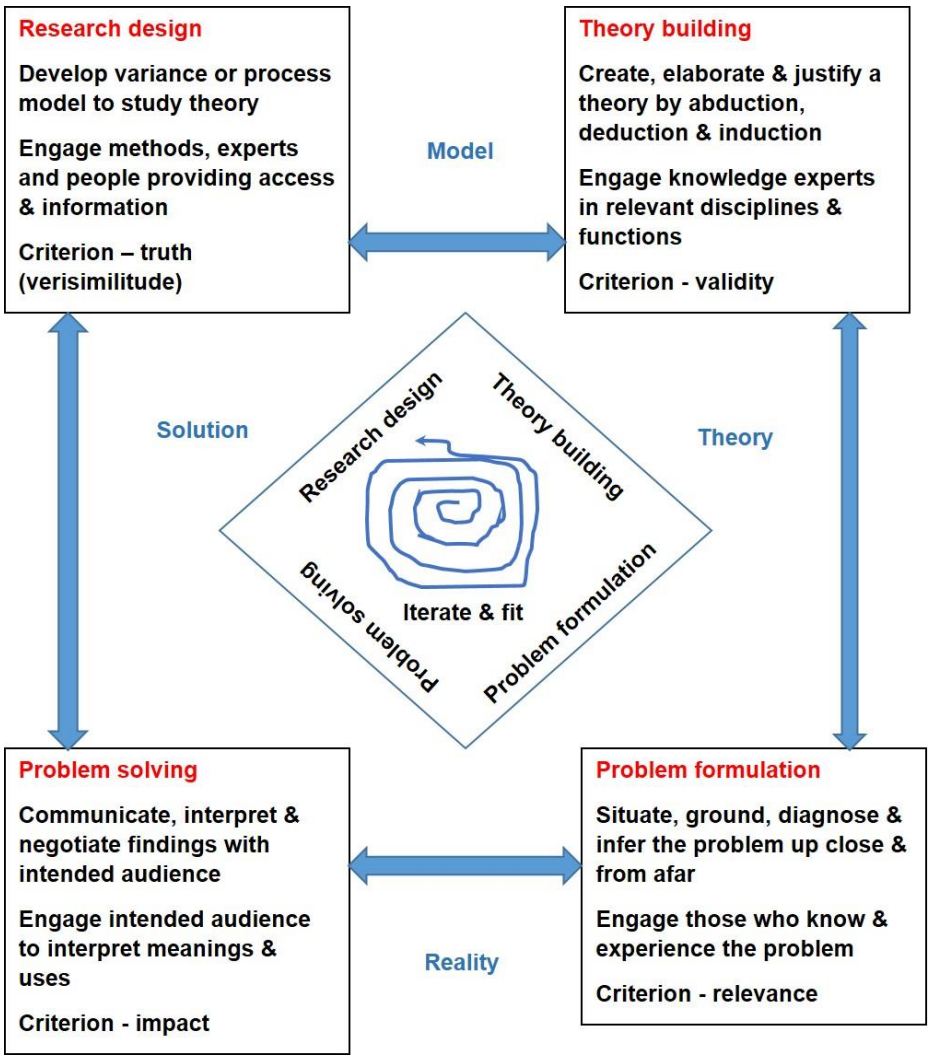


Figure 2.27 Engaged scholarship diamond model. (Adapted from Van de Ven, 2007, p. 10).

These stages also align with the Triple E model; explore correlating to theory building and research design, problem formulation aligns with explore and experiment and problem-solving, experience. The engaged scholarship approach links closely with the dual cycle action research approach proposed by McKay and Marshall (2001). The model shows the four stages and the interactions discretely, in practice discussions with stakeholders go across these boundaries. To design an intervention and the components it is necessary to gain an understanding (Bignell & Fortune, 1984, p. 157), and an appreciation

of the system of interest (Vickers, 1968a). All the input needs to be reflected upon to gain a full appreciation of the factors impacting upon the systems. This approach provided a pluralistic approach to the problem domain providing a broad view of the system of interest.

Van de Ven (2007a, p. 28) proposes that action/intervention research is a form of engaged scholarship along with three other forms and the next section will discuss action research applied to this research. By using engaged scholarship, the different perspectives of the actors involved in projects were accommodated and a systemic view of projects introduced into the organisation. This approach also allowed for projects to be viewed in a pluralistic way; that is taking more than one perspective. Different actors will expect different results from projects, and so it is necessary to go beyond the singular view of the project manager which is strongly influenced by the prevailing project definitions. Another significant reason for using engaged scholarship was to ensure the application of stakeholder engagement to this research project, as discussed in Chapter 1, a factor in the Council's project performance was poor or non-existent stakeholder engagement. I was coaching and advising staff to ensure stakeholders were engaged not just consulted with after decisions had been made; so, it was important that I modelled the new behaviours I was attempting to instil in others.

2.7.2 Action science and action research

The research described in this thesis was concerned with providing dissolution of a business problem and exploring the impact of this intervention in the Council. Action science is an approach which combines problem-solving with theory building and testing emphasising the advance of knowledge whilst solving practical problems (Argyris, Putnam, & Smith, 1985) and as such is a '*science of practice'* (Argyris et al., 1985, p. 4). These authors say that this

combination would usually be called action research however they felt, at the time of their writing, that action research had become separated from theory building and testing and they believed the research of practical problems contributes to theory. These authors go on to state;

> *'Action science is an inquiry into social practice, broadly defined, and it is interested in producing knowledge in the service of such practice.'* (Argyris et al., 1985, p. 232).

Authors such as Reason and Bradbury (2006, p. 8) suggest human inquiry is necessarily practical and Macmurray (1957, p. 12) suggests knowledge comes from activities that have practical objectives. Thinking, reflecting and theory building are actions as much as theory testing and as the same author further states

> *'In acting the body indeed is in action, but also the mind. Action is not blind…. Action, then, is a full concrete activity of the self in which all our capacities are employed.'* (Macmurray, 1957, p. 86)

Raelin (1999) produced a table showing various characteristics of different action approaches to research, produced below;

Characteristics	Action Science	Action Research
Philosophical basis	Lewinian action research, Dewey's theory of inquiry	Gesalt psychology, pragmatism, democracy
Epistemology	Reflecting-in-action, making explicit tacit theories-in-use	Knowing through doing and applying discoveries
Methodology	Reflecting on there-and-then and here-and-now reasoning, with an emphasis on online interactions	Interactive cycles of problem defining, data collection, taking action or implementing a solution, followed by further testing

Table 2.6 Philosophical basis of action science and action research (Raelin, 1999, pp. 120-121).

Dual cycle action research was chosen as the research approach due to its systemic nature, the duality of work and the fact I was activity involved in the whole intervention with my role of having responsibility for project performance within the organisation. As Reason and Bradbury (2006, p. xxv) state:

> *'Action research is therefore an inherently value laden activity, usually practised by scholar-practitioners who care deeply about making a positive change in the world.'*

Burns (2007, p. 11) states

> *'Action research is not a methodology. It is an approach to inquiry that supports many methods in the service of sense making through experimental action.'*

This author also writes of

> *'…integrating 'learning by doing' with deep reflection…that can simultaneously inform and create change'* (Burns, 2007, p. 11).

In this way as well as looking to develop reflective practitioners I also was developing my reflection. Action research is an approach which combines action and research in a collaborative, iterative, and emergent inquiry process (Holian & Coghlan, 2013, p. 400; Saunders et al., 2012, p. 183), and links well with Vickers (1968b, p. 130) description of an *'Appreciative System as a continual process of learning'.* Action research also places an emphasis on practical outcomes (Bryman, 2012, p. 393; Reason & Bradbury, 2006, p. xxii), and developing solutions to problems (Coghlan & Shani, 2014, p. 524; Sankaran et al., 2014, p. 552; Saunders et al., 2012, p. 183) and this research is concerned with practice and dissolving poor project performance.

In his 1946 paper Lewin writes of action research

> *'…a comparative research on the conditions and effects of various forms of social action and research leading to social action'* Lewin (1946, p. 35).

He also considers this research method

> *'…a spiral of steps, each of which is composed of a circle of planning, action, and fact-finding about the result of the action'* (Lewin, 1946, p. 38)

This has similarities with Vickers' and Bateson's concepts of spirals of learning and the iteration of the Triple E model was applied throughout this research. Lewin also contended that theory and explaining alone are insufficient,

> *'The…cause of dissatisfaction is the growing realisation that mere diagnosis…does not suffice. In intergroup relations as in other fields of social management the diagnosis has to be complemented by experimental comparative studies of the effectiveness of various techniques of change.'* (Lewin, 1946, p. 37)

This shows that for Lewin, *'…research that produces nothing but books will not suffice'* (Lewin, 1946, p. 35), he felt that action and change needed to take place as well (Coghlan & Shani, 2014, p. 524). These same authors go on to state

> *'This insight led to the development of action research and the powerful notion that human systems could only be understood and changed if one involved the members of the system in the inquiry process itself.'* (Coghlan & Shani, 2014, p. 524).

As has been discussed earlier, this research involved members of the system in the process using engaged scholarship and I was a member of the system in the inquiry process. Action research is defined by Dick (1997) as

> *'…a process by which change and understanding can be pursued at the one time. It is usually described as cyclic, with action and critical*

reflection taking place in turn. The reflection is used to review the previous action and plan the next one. It is commonly done by a group of people, though sometimes individuals use it to improve their practice. It has been used often in the field of education for this purpose. It is not unusual for there to be someone from outside the team who acts as a facilitator.'

Kemmis and McTaggart (1988, p. 11); Nogeste (2008, p. 569; 2015, p. 229) propose a four-stage spiral which is adapted as shown in Figure 2.28;

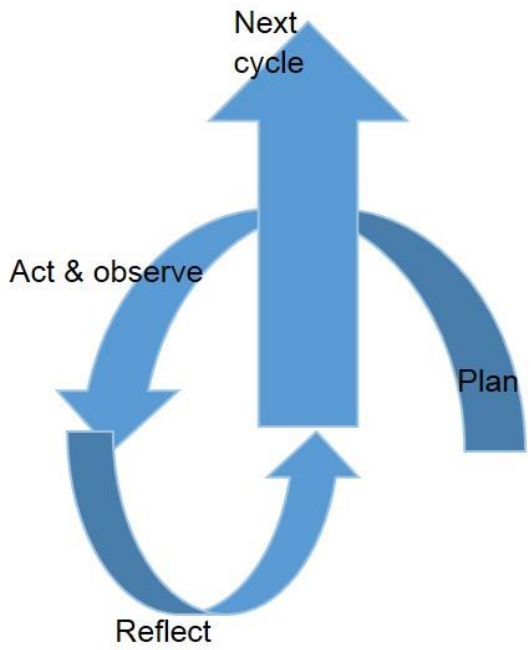


Figure 2.28 Action research spiral. (Adapted from Kemmis & McTaggart, 1988, p. 11; Nogeste, 2008, p. 569; 2015, p. 229).

A key element is that the process is iterated and consequently the model introduced into the Council evolved over time as the action research spiral as Figure 2.29 displays. It will be noted that as the cycles iterate they grow bigger for as Bateson (1972) suggests as each iteration expands our learning the new

iteration starts from a different level to the previous iteration, thus knowledge is expanded.

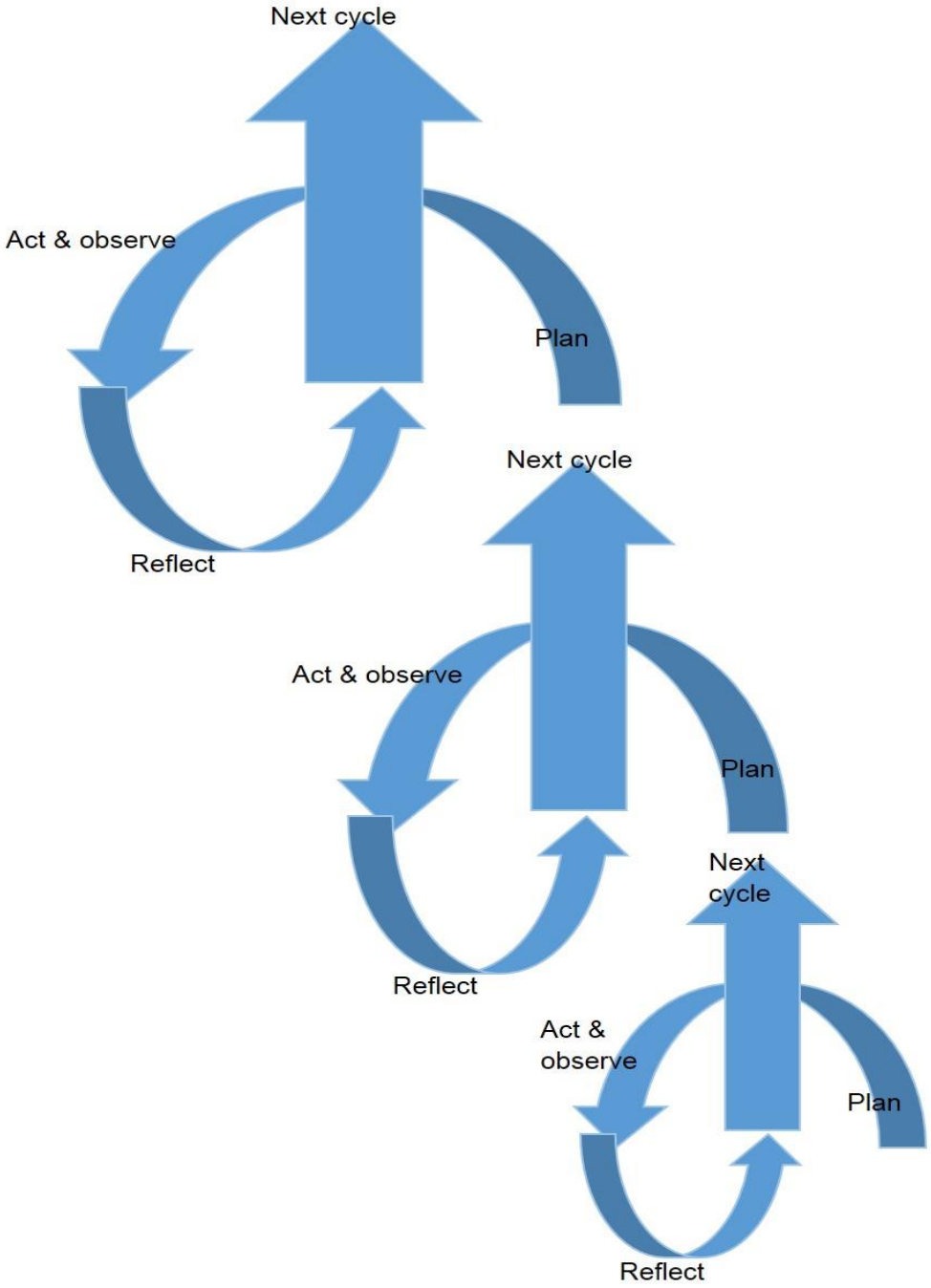


Figure 2.29 Action research spiral iterating and expanding as knowledge is gained. (adapted from Kemmis & McTaggart, 1988, p. 11; Nogeste, 2008, p. 569; 2015, p. 229).

There were dual cycles to this project;

1. The intervention designed to improve project performance within the Council and
2. The research on this intervention;

Both cycles were designed for the production and use of knowledge. This was shown graphically in Figure 1.9 on page 44 and is reproduced here for convenience.

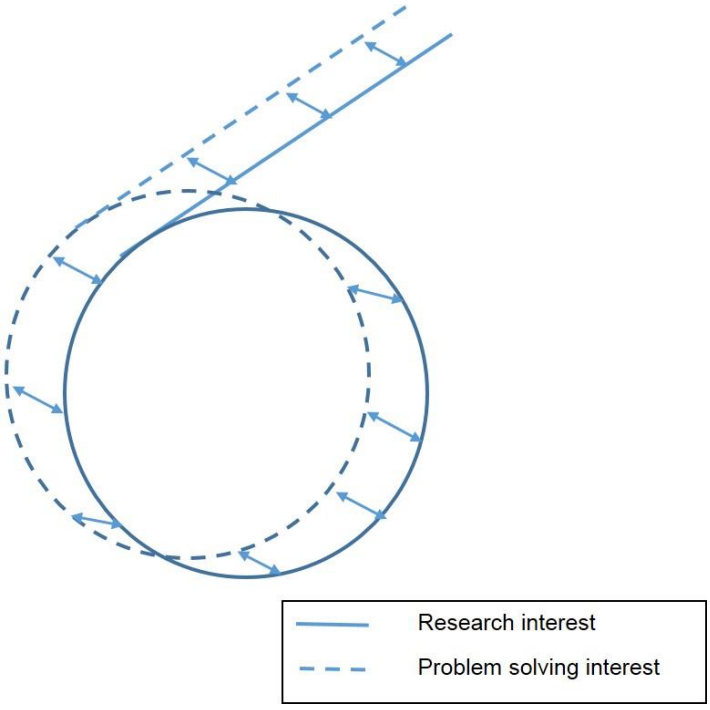


Figure 2.30 Dual cycle action research. (McKay & Marshall, 2001, p. 52).

Table 4.1 on page 172 shows in tabular form the steps McKay and Marshall (2001, pp. 50-51) display as two separate diagrams which aids understanding of the different steps involved in each cycle Nogeste (2008, p. 570; 2015, p. 230).

The model was introduced, then the results reflected on, and further changes made over the period of the project. The process formed a spiral as Figure 2.29 represents and Bateson (1972); Lewin (1946); Nissen et al. (2007) contend. As

represented in Figure 2.29 and Table 4.1 the spiral of learning was applied to each element of the model albeit with different cycles of iteration. I actively engaged stakeholders in the scholarship so dual cycle action research is considered suitable as an approach and empowers other actors in the process. The research will be interpretive and subjective being based on interviews with some quantitative data in the form of business metrics identified as part of an evaluation plan.

In using action research, I need to be aware of my influence as I am a participant in the system specifically in the development programme as a facilitator as well as working within the boundary of the model; this is a position which it is argued is best for soft systems research (Stowell, 2009, p. 889).

2.8 Concluding remarks

This chapter has explored three disciplines, projects, practitioner development and Systems Thinking considering them individually with some synthesis. Also, reviewed have been engaged scholarship, action science and action research. The next chapter will detail the research approach building on the previous two sections.

The reviews in this chapter have shown a significant gap in the literature which this thesis explores, direction 5, from practitioners as trained technicians to practitioners as reflective practitioners. Svejvig and Andersen (2015) state there are only seven contributions to the literature referencing direction 5, and these are concerned with University courses rather than developing reflective practitioners in a workplace environment. This thesis is focussed on addressing this gap with an approach to developing reflective practitioners in the workplace. I applied a different definition of projects with a focus on value creation rather than the prevailing focus on product creation as proposed in direction 3. I

contend that the current project management paradigm draws a narrow boundary on a project which can be compared to investigating just the violin section of an orchestra.

When this work commenced, the literature and my experience argue that most attempts to improve performance concentrate on training which is second hand and passive in nature. This approach leads to a lack of learning with the same thinking being applied so that ‘a bigger hammer’ is constantly used. The belief that training in technical skills is the solution suggests a need to rethink and that a different approach is required so that reflective practitioners who are continuous learners are developed. Active learning is proposed as an option to achieve this aim. The approach utilised in the nursing and teaching professions has been reviewed and considered for application to project practitioners and later chapters will explore how these active learning approaches were applied and the results from this application. Given that this thesis describes an intervention based on promoting learning within the Council and to contribute to general knowledge action science (Argyris et al.,1985, p. 36) combined with dual cycle action research is an appropriate methodology for this research. The next chapter will provide further detail of the research approach building on the two sections above.

Chapter 3 Research design

In this Chapter, I discuss the methodological choices that informed this study with Figure 3.1 providing a graphical overview.

Figure 3.1 Outline of Chapter 3. (Author's work with Inspiration ®)

3.1 Overview

In the previous chapter, the concept that purpose needs to be identified was explored and was a key finding from my research into the Vanguard method (Summers, 2011b). I suggest that the purpose of any project needs to be identified and made explicit before the commencement of activities (Summers,

2015), and a research project is not exempt from this requirement (Jankowicz, 2005, p. 3).

It is important to determine the why of the research before how and what can be considered. The purpose of this project was to explore ways of improving project performance within the Council, experiment with these ways and reflect on the experience; as Avison, Lau, Myers, and Nielsen (1999, p. 94) state:

> *'To make academic research relevant, researchers should try out their theories with practitioners in real situations and real organisations.'*

In this case I was both researcher and practitioner and my hypothesis was that a different approach to the commissioning and executing of projects was needed to reverse the trend of poor performance inside the organisation. I brought to this work 35 years of work place experience across different industry sectors and both private and public sectors. This experience was infused with two years studying for a Master's degree which gave a theoretical understanding to my practical knowledge. This combination of practice and theory enabled me to explore and experiment drawing on my experience how theory worked in practice.

Chapter 1 described in summary the business problem to dissolve, the poor performance in projects that required a pragmatic approach; an attempt to discover how project performance could be improved and importantly, sustained. In attempting to combine this problem-solving approach with research into the approach a dual cycle of problem-solving and research (McKay & Marshall, 2001; Nogeste, 2008, 2015), was undertaken which required my gaining an appreciation of the causes of the poor performance. To gain this appreciation a review of practice both in the Council and other organisations was undertaken in tandem with a review of articles and books on projects building upon my own experience and knowledge.

The appreciation was based on Vickers' concept of an *'appreciative system of learning'* (Vickers, 1963, 1968a, 1968b, 1983), and I acted as an appreciative system of learning constantly garnering information, valuating this information, acting on the information, then iterating the process. Vickers realised that learning takes place in a changing and uncertain environment, a *'flux of ideas and events'* and over time an appreciation is gained. Vickers also wrote of *'appreciative behaviour'* which he stated *'involves making judgments of value, no less than judgments of reality;'* (Vickers, 1963, p. 289). This is shown as a model in figure 3.2 below. Vickers did not present his ideas graphically so this model is my interpretation.

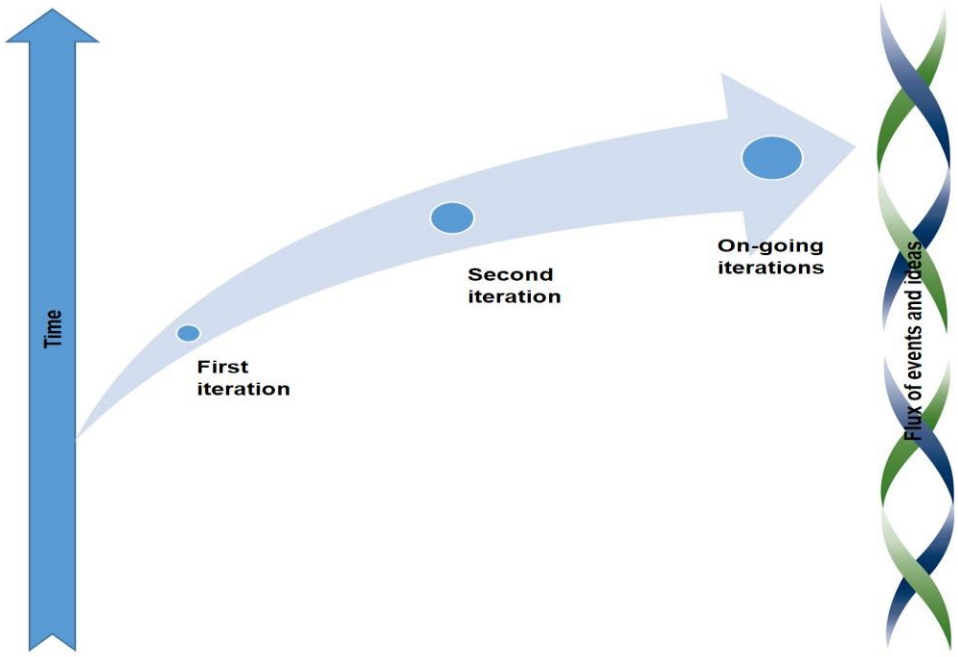


Figure 3.2 Model of Vickers' *'appreciative system of learning'.* (Author's interpretation based on Vickers)

The appreciation involves the application of practice and reflection about this practice or as Nissen, Bednar, and Welch (2007, p. 1) suggest *'…or thinking, and thinking about thinking.'* These authors also state

'As reflection triggers change in use, and such change triggers further reflection, a spiral comes about. Lived human experience, and reflection upon that experience, seems to shape a double helix.'

Based upon this concept I explored, experimented and experienced, applying the Triple E model, (see Figure 1.8 on page 42 and Table 4.1, page 172) and improved my understanding of projects and their management. Exploring took the form of enquiring and discussing with stakeholders so that my hypotheses were defined and refined. Experimentation was about floating ideas and trying them out and finally experiencing was achieved by testing the theories in practice and gaining data on the outcome of the tests. This was then iterated gaining further data.

A Systems Thinking approach to the problem domain and research combining a portfolio approach and educating project staff underpinned by a definition of projects stressing the realisation of benefits was tested and reflected upon in an iterative manner leading to the spiral or double helix discussed in the work of Nissen et al. (2007). The research was concerned with appreciating reasons for poor project performance in the Council, reflecting on how to dissolve these, designing a model to improve project performance, then implementing this model and finally evaluating the data. The research was designed to explore the following questions;

1. Would a development programme based on active learning develop reflective practitioners?
2. What impact would such a development programme have on project performance?

A model was introduced into the Council with three elements, portfolio, practitioner development, and community of practice all wrapped in communications served both to improve practice and to learn more about ways

of improving practice. Thus, the model serves as an epistemological, ontological and axiological device, being a method for discerning knowledge, applying knowledge and the role of values in interpreting knowledge and is shown in Figure 3.3, below and in more detail in Figure 4.3, page 184.

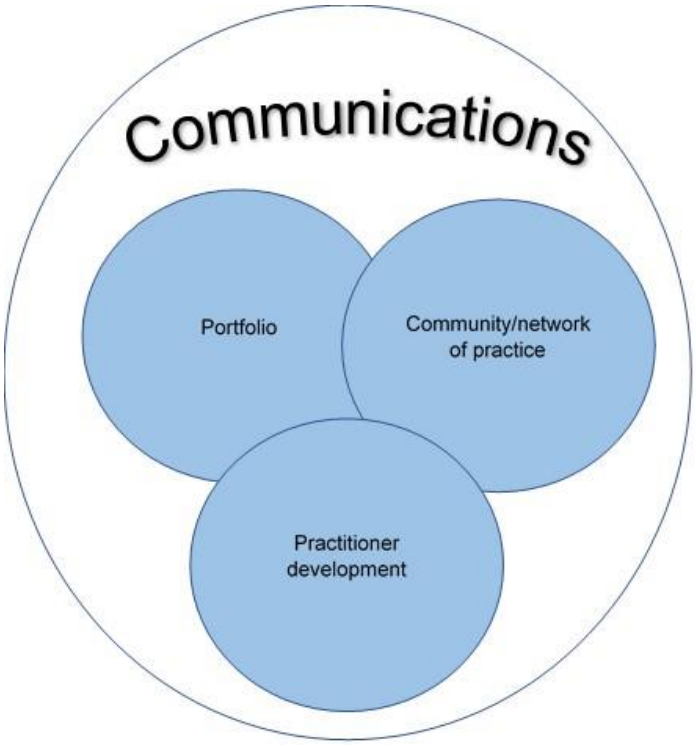


Figure 3.3 Model introduced into Council. (Author's work)

A Systems Thinking approach based on the work of Ackoff, Bateson and Vickers was used throughout the research with reflection on existing practices followed by action which yielded new information. This new information was in turn reflected upon before further action for improvement was taken. This reflective process of appreciation was continued throughout the research and involved individual thinking on the events as well as discussions with other colleagues, especially my co-facilitator who was involved in delivering the development programme.

These reflections frequently involved deep and long thinking on project performance and the discussions that I had with members of staff and external people. For example, during a wet and cold August Saturday watching cricket, I reflected on project failure, especially why projects frequently overran cost and time constraints despite the focus from project definition and in practice on these variables. My conclusion was that the focus on cost and time was a significant factor in project failure by turning these into targets leading to '*inattentional blindness'* (Chabris, Weinberger, Fontaine, & Simons, 2011; Simons & Chabris, 1999) as will be discussed in Chapter 4.

In approaching the business problem and the research I utilised a dual cycle action research approach (McKay & Marshall, 2001; Nogeste, 2008, 2015), combining insider action research (Coghlan, 2007) with engaged scholarship (Van de Ven, 2007; Van de Ven & Johnson, 2006a); an approach which enabled the many stakeholders to be involved and provided a broader approach to the problem being investigated. Additionally, an action science approach (Argyris, Putnam, & Smith, 1985) as detailed in section 2.7.2 page 135, enabled me to link theory and practice and develop knowledge from both (Sankaran & Dick, 2015). My initial findings suggested that stakeholder engagement in the Council's projects was poor and had been non-existent in the two previous interventions. Therefore, I felt it important to engage the stakeholders and by using an engaged scholarship approach the stakeholders were involved in the dual cycle of research and problem-solving; such an approach to research into the management of projects is proposed by Winter and Smith (2006, p. 12); and Winter et al (2006, p. 661).

Systems Thinking is capable of yielding insights into the nature of the phenomenon examined; and methods of understanding the phenomenon (Van de Ven, 2007, p. 36), and additionally enables inquirers to consider different perspectives on the phenomenon, giving a fuller picture to support problem

dissolving. My role in the organisation also entailed an engaged insider aspect to the research, being more than just that of a fly on the wall observer. I was actively involved in the design and implementation of the model throughout the duration of the research (Brannick & Coghlan, 2007; Coghlan, 2001, 2003, 2007; Drake, 2010; Holian & Coghlan, 2013; Kumar, 2013) and had a significant influence in the way the model was applied.

The following sections will discuss both the underpinning theory and how this was applied combining theory and practice with the intention of making the research relevant to my organisation and the wider project network. The research is longitudinal in nature with the portfolio and the community of practice, which met regularly until 2013, being introduced at the start of 2008, and the development programme in the autumn of 2009 which was iterated three times, although work on practitioner development started in spring 2008.

3.2 Philosophy, theory and practice

Kondrat (1992, p. 246) suggests that there has been a separation between thinking and doing since Descartes, and that

> *'…action is assumed to follow thought."* which she claims is because *"Descartes' dictum made cognition ontologically and logically prior to being and acting.'* (Kondrat, 1992, p. 246).

On the other hand, it has been argued that practice leads theory;

> *'That all our knowledge begins with experience there can be no doubt. For how is it possible that the faculty of cognition should be awakened into exercise otherwise than by means of objects which affect our senses…'* (Kant, 1781, p. Introduction)

Checkland (1985, p. 758) diagrammatically shows these apparently opposing views as a continuous loop as in Figure 2.26 page 236, stating that neither theory nor practice is prime, with both generating knowledge. Winter, et al. (2006, p. 652) concur with this view describing theory as knowledge and practice as experience.

The position of Descartes and Kant leads to a schism which suggests different approaches to theory, the Descartes view lends itself to a top down approach, espousing a theory leading to hypothesis and data collection to prove or disprove the theory which is known as deduction (Bryman, 2012, p. 24; Creswell & Plano Clark, 2007, p. 23). Conversely using induction is bottom up, collecting data and formulating theory from the data, following Kant's argument above (Bryman, 2012, p. 380).

Phillips and Pugh (2005, p. 50) assert that pure inductive reasoning is impossible; there will always be an idea as a starting point and

> *'All scientific work of an experimental or exploratory nature starts with some expectation about the outcome. This expectation is a hypothesis.'* (Phillips & Pugh, 2005, p. 50).

My expectation or belief is there is a better way to improve project performance rather than applying ever increasing levels of top down control and compliance leading to a reinforcing feedback loop; albeit at the beginning of my research journey I was unsure the form this better way might take.

There is a third approach to reasoning, abduction (Bryman, 2012; Douven, 2011; Neuman, 2011) which is distinguished from inductive reasoning due to '*…its reliance on explanation and understanding on participant's worldviews.'* (Bryman, 2012, p. 401).

The term abduction was first used by Charles Pierce (Douven, 2011), and he suggests

> '*Abduction is the process of forming an explanatory hypothesis. It is the only logical operation which introduces any new idea; for induction does nothing but determine a value, and deduction merely evolves the necessary consequences of a pure hypothesis.'* (Burks, 1946; Douven, 2011)

Hanson (1958, p. 90) writes of retroduction, *'…built-up in reverse…'* which Alvesson and Skoldberg (2000, p. 50 note 58) state is a less common term for abduction. Hanson (1958, p. 90) further suggests that *'…abduction, which in simple terms means the ability to see patterns, to reveal deep structures.'*

A way of differentiating between these three approaches of reasoning is shown in Exhibit 3.1

Deductive reasoning is shown in the television show Colombo, a detective who decides whodunit and collects evidence to support the theory, Crime Scene Investigation (CSI) shows the collection of evidence leading to formulating a theory of whodunit and is analogous with inductive reasoning and finally Sherlock Holmes, a detective created by Arthur Conan Doyle, who suggests that if the impossible is eliminated then whatever remains however improbable must be the truth, a form of abductive reasoning.

Exhibit 3.1 An analogy with television detective shows

Saunders, Thornhill, and Lewis (2012, pp. 144-145) suggest that deduction is theory testing, induction takes the form of theory building and abduction collects data to explore and explain and then tests a modified theory. These authors also make the valid point that these methods are not discrete and may all be advantageously used in a research project (Saunders et al., 2012, p. 148).

The research described in this thesis combines these three types of reasoning using the appropriate type for the situation. The work started with induction by gaining an appreciation of project performance and the various elements which impacted this performance, this was by observation, discussions with stakeholders, reading extensively and based on findings from my 35-year work experience and studies during my Master's degree. This led to the design of a model and the formulation of the hypotheses, the expectation as Philips and Pugh (2005, p.50) describe. Evidence was collected as the model was applied and the hypotheses evolved. As the research progressed, amongst my conclusions, I concluded that a tight focus on control especially of cost and time budgets was leading to project failure – a somewhat improbable conclusion at the outset of this work, and counter-intuitive to many managers.

The researcher's worldview will affect the research design and data collection as well as the interpretation of the data and the theory being tested. There are alternative worldviews or paradigms such as positivism, constructivism, interpretivism and pragmatism suggested by various authors (Bourne, 2005; Bryman, 2012; Cooke-Davies, 2000; Creswell, 2009; Creswell & Plano Clark, 2007; Walliman, 2005) and these worldviews are rarely discrete with researchers fitting into different ones. There is also some crossover depending upon the author being read and the number of differences lead to what Pawson and Tilley (1998) and Oakley (2000) describe as the *'paradigm wars'* with Mkansi and Acheampong (2012, p. 132), suggesting students become confused by these arguments as they state *'…causes dilemma to research students in establishing its relevance to subject areas and disciplines…'*

Positivism or postpositivism categories suggest that every assertion is capable of being scientifically verified (Walliman, 2005, p. 16), this worldview is sometimes called the scientific method (Creswell, 2009, p. 5), and Bryman (2012, p. 28) states

> ‘*Positivism is an epistemological position that advocates the application of the methods of the natural sciences to the study of social reality and beyond.’*

This same author contrasts this position with interpretivism which he defines as

> *‘Interpretivism is a term that usually denotes an alternative to the positivist orthodoxy that has held sway for decades. It is predicated upon the view that a strategy is required that respects the differences between people and the objects of the natural sciences and therefore requires the social scientist to grasp the subjective meaning of social action’* (Bryman, 2012, p. 30)

Projects and the wider organisations involved in delivering them are human activity systems (Checkland, 1999, p. 314); and the processes cannot be separated from the people involved in them (Winter & Smith, 2006, p. 13). Humans do not act in ways which are binary; there are nuances with decisions and actions taken which may appear irrational on the surface although mostly based on the individual’s belief and value system, their appreciative settings. In dealing with the business problem and the exploration of the problem I was interested in what worked; a pragmatic viewpoint (Saunders et al., 2012, p. 130). There was also a recognition that there are multiple realities and a singular viewpoint will not provide a complete picture (Saunders et al., 2012, p. 130).

Corbin and Strauss (2008, p. 2) suggest that Dewey and Mead are the main influences in the pragmatism philosophy stating, *‘Both Dewey and Mead assume, for instance, that knowledge is created through action and interaction.’* With Dewey (1929, p. 138) stating *‘…ideas are not statements of what is or has been but of acts to be performed.’* Furthermore, he suggests there is a need to act and then reflect upon those actions relating them to the facts as he states:

> *'Some decisive action is needed to establish contact with the realities of the world and in order that impressions may be so related to the facts that their value is tested and organised.'* (Dewey, 1934, p. 47)

Rorty (1982) suggests that what matters is a search for what works rather than what is true and my concern was with how to improve project performance and testing my hypotheses in the Council. The stakeholders in the problem-solving also had their own ideas how I should proceed, and these needed to be considered to explore what worked. The ideas and beliefs of the foregoing authors are ones which I share, that ideas need to be actioned and applied into practice and the resulting impacts reflected upon before refining the idea. The process is then iterated repeatedly forming a spiral; as Bateson, (1972) suggests action and reflection leading to improvement forms a spiral as the actor after each iteration is at a new level from which to reflect further.

Additionally, I opine reality is subjective and socially constructed, an interpretivist viewpoint. The research approach chosen is aligned with the pragmatism, constructivism, and interpretivism worldviews with the emphasis on practicality, closeness to the research subjects, qualitative, inductive, abductive and interpretive research. The table below adapted from Saunders et al. (2012, p. 140) shows a comparison of the philosophical assumptions of the paradigms of pragmatism and interpretivism. I have omitted positivism and realism from the original.

	Pragmatism	Interpretivism
Ontology – researcher's view on the nature of reality	External, multiple, most appropriate view chosen to best enable answering of research question	Subjective, socially constructed, may change, multiple
Epistemology – researcher's view on acceptable knowledge	Either or both, observable phenomena and subjective meanings can provide acceptable knowledge dependent upon the research question. Focus on practical applied research, integrating different perspectives to help interpret the data	Subjective meanings and social phenomena. Focus upon the details of situation, the reality behind these details, subjective meanings motivating actions
Axiology – researcher's view on role of values in research	Values play a large role in interpreting results, the researcher adopting both objective and subjective points of view	Research is value bound, the researcher is part of what is researched, cannot be separated, so will be subjective.

Table 3.1 The pragmatism and interpretivism philosophies. (Adapted from Saunders et al., 2012, p. 140).

The research project commenced with gaining an appreciation of project practice within the organisation from the worldviews of multiple stakeholders. The appreciation was biased by my appreciative settings, my values, beliefs and experiences suggesting how project performance could be improved. These values and beliefs lead to assumptions and as part of the reflective elements I endeavoured to make them explicit, considering how such assumptions were biasing my views and the validity of my beliefs. As Bryman (2012, p. 39) states *'…there is a growing recognition that it is not feasible to keep values that a researcher holds totally in check.'* This author then lists several intrusion points including choice of method, analysis and interpretation of data amongst others. I engaged with numerous stakeholders and this assisted in challenging my biases, however this engagement itself is a product of my bias toward collaboration. Throughout the problem-solving and research activities I attempted to take account of my bias. However, as a pragmatist I accept subjectivism as an ontological position, so bias is inevitable.

The problem-solving intervention was informed by what I perceived to be gaps in the previous interventions within the Council and interventions within other organisations. These gaps were

1. Poor alignment to business strategy
2. A failure to embed an approval process
3. Any cohesive means of developing project staff

Given this appreciation I theorised that a model aligned with the business requirements incorporating three elements (Figure 3.3) and providing a holistic view of projects may lead to improved project performance. This model was applied to the organisation; knowledge generated which was applied from practice and back into theory again by the application of appreciation and reflection in a continuous loop as shown in Figure 2.26 page 236.

3.3 Insider research

Holian and Coghlan (2013, p. 399) state:

> *'Insider action research describes the process when a member of an organisation undertakes an explicit action research role in addition to the normal functional roles they hold in an organisation.'*

This describes my role in the research where I was the researcher investigating an alternative approach to project performance, the area I was responsible for in my role within the Council. In this way, I was a scholar-practitioner (McClintock, 2004) spanning both theory and practice as well as having responsibility for improving project performance so the emphasis was on the practitioner viewpoint – what actions would improve project performance. The section following explores the idea of scholar-practitioner in more detail.

Holian and Coghlan (2013, p. 401) consider

> *'Insider action research projects usually focus on issues that have been identified and selected by the researcher in collaboration with others which are seen as either an opportunity worth further exploration or problems that need to be addressed.'*

The research described in this thesis was concerned with addressing the problem of poor project performance and the main issues identified in collaboration with people employed in the organisation. Edwards (2002, p. 71) uses the term *'deep insider research'* when the researcher has been in the organisation more than five years, as I had. Additionally, I had been investigating and reflecting upon project performance for some years prior to this intervention both during and after my degree studies. This prior '*…engagement acts as an aid to validity.'* (Edwards, 2002, p. 72). Coghlan (2001, p. 49) states

> *'Managers are increasingly undertaking action research projects in their own organizations. Action research involves opportunistic planned interventions in real time situations and a study of those interventions as they occur, which in turn informs further interventions.'*

Research in this way can help bridge the perceived relevance gap as the intervention is assessing how theory really works in organisations and is applied to real events; in this case the improvement of project performance taking a systemic approach. However, as Brannick and Coghlan (2007, p. 61) state

> *'It may be noted that by and large, this research does not get published in refereed journals, has difficulty in being accepted as real research, and frequently is referred to as a company project.'*

These authors however argue that insider research does have academic value and validity. It is not unusual for different methods of research to be dismissed as lacking validity and being regarded as not real research. Greene (1999) and

Heffernan (2012) both recount the story of Alice Stewart's research findings into how administering prenatal x-rays caused childhood death from leukaemia were disparaged and dismissed partially due to the approach not *'…using the more accepted prospective approach'* (Greene, 1999, p. 88). Heffernan (2012) argues that this is an example of wilful blindness, however I contend it may be more an example of falling into the trap of a single perspective, dogmatism. Whilst accepting the requirements of validity and relevance how this is achieved becomes a matter for the researcher influenced by the hypotheses, the environment the research is being conducted in and the researchers' worldview, subject to peer review and examination. This work was also concerned with the collection and analysis of data from human subjects; which constitutes research in social contexts. The research being described in this thesis when being undertaken by myself could only be insider research. My role in the Council was charged with improving project performance and as an insider I generated knowledge from my experience (Brannick & Coghlan, 2007, p. 60). As an insider, I had knowledge of the organisation, its culture and the issues that were leading to poor performance. This knowledge was subjective and coloured by my appreciative settings, it also meant I had some ideas about the approach to take to gain acceptance of my ideas.

Holian and Coghlan (2013, pp. 401- 402) explore the role duality of an insider researcher having both an organisational and researcher role as well as approaching the research from both a first and second person perspective, so a duality of dualities. The second person role requires collaborative working on the issue(s) whilst the first-person role is concerned with reflection on the researcher's practice and experience; this research duality is in addition to the researcher carrying out their organisational role. This research concentrated on findings and data and reflections of these findings producing refinements to the model which were then applied to the organisation.

I was also an insider in the discipline of project management having been involved in projects for over 20 years, gaining my PRINCE2 practitioner certification, Managing Successful Programmes practitioner certification, Association for Project Management Professional (APMP) as well as becoming a full member of the Association for Project Management (MAPM). Additionally, since 2003 I had studied the organisation in general and its project performance specifically mainly due to undertaking a period of study for a Master's degree. This degree consisted a mix of taught units and work based learning units where the theory was considered in relation to the practice. In completion of this degree I researched how the Council delivered its projects from several different viewpoints. This research included investigations into what if any processes or methodologies were used, understanding how the culture of the council and individual services affected project performance, how change was implemented within the council and comparing these results with the theory on the subjects.

This position as insider in both the organisation and the discipline with both being researched enables a unique perspective on project performance and encouraged the application of new thinking (Winter et al., 2006, p. 640) and challenging the taken for granted assumptions of both organisation and discipline (Cunliffe, 2002, 2016).

3.4 The researcher as scholar-practitioner

In this project, I was both practitioner and researcher, and as such there was collaboration with stakeholders and direct involvement in applying theory into practice.
McClintock (2004, p. 604) defines those in this position as scholar-practitioners;

> *'an ideal of professional excellence grounded in theory and research, informed by experiential knowledge, and motivated by personal values, political commitments, and ethical conduct'*

Authors such as Posner (2009), Van Til (2000) and Salipante & Aram (2003) describe the concept of a foot in both camps, spanning them and generating knowledge from applying theory directly into practice and back again. The term scholar-practitioners is also used by Reason and Bradbury (2006, p. xxiii) *'… whether they are in or out of academia.'* The Coghlan view of insider research is one of boundary spanning, a researcher enquiring upon a problem from the lens of a practicing manager, which is the position I was in when undertaking this research. Frequently however the issue that arises is neither practitioners nor academics accept the validity of the scholar-practitioner. As an example, some colleagues may consider the scholar-practitioner to be too theoretical and not sufficiently grounded in practice and conversely as Brannick and Coghlan (2007, p. 60) state

> *'Academic research primarily is focused on theory development and may or may not be concerned about actions or practice. Insider research typically is seen as problematic, and indeed, frequently is disqualified because it is perceived not to conform to standards of intellectual rigor because insider researchers have a personal stake and substantive emotional investment in the setting (Alvesson, 2003; Anderson & Herr, 1999; Anderson, Herr, & Nihlen, 1994). Insider researchers are native to the setting and so have insights from the lived experience. Rather than this being considered a benefit, insiders are perceived to be prone to charges of being too close, and thereby, not attaining the distance and objectivity deemed to be necessary for valid research.'*

Notwithstanding this as Winter, et al. (2006) and Checkland (1985) have shown in Figure 2.26 page 236, along with Kant (1781) and Kondrat (1992) there is legitimacy in researching both theory and practice to gain a richer understanding of phenomena and as Brannick and Coghlan (2007, p. 61) state

> *'It is becoming increasingly common for individuals who are participating in academic programs, particularly on a part- time basis in conjunction with full-time employment, to select their own organizational setting as the site for their research'*

This describes my position in this research. The scholar-practitioner needs to reflect on both practice and research findings (Alvesson, 2003; Alvesson & Skoldberg, 2000; Etherington, 2004, 2007; Schön, 1983). In the dual cycles, this was ongoing with reflection about the findings from observation of practice as well as reflecting my practice, thinking about projects and how to improve performance not just in the target organisation, also in other organisations. The importance of reflection in and on practice was applied in the development programme with opportunities for the delegates to reflect on the activities they were involved in.

3.5 Purpose of this research

A key principle in the design of the learning activities and in the delivery to the delegates was that of understanding the purpose of projects. Projects are not commissioned to deliver an output to specified constraints despite the common definitions of projects used; they are to deliver beneficial change (Turner, 2008) to the organisation delivering the organisation's strategy, and it is important to clarify the purpose of the project. Gaining clarity of purpose (Seddon, 2005, 2008) is an important principle not just in terms of projects but also other activities such as designing degree courses and units, other learning activities, corporate strategies among them. So, it is also for a research project and clarity of purpose should be defined before commencement. Sometimes the purpose may have direct benefit for organisations, sometimes the purpose is to develop initial theory which may subsequently be further developed and applied to practice.

The benefits may be just for the researcher or team of researchers and be pure theory rather than any of any immediate practical use to business managers. The purpose or type of a research project can be broadly organised into three groupings, exploratory, descriptive and explanatory (Neuman, 2011) whilst Phillips and Pugh (2005, pp. 51 - 52) suggest exploratory, testing-out and problem-solving as their descriptors. These descriptors are not discrete and research projects will often have elements of each. The table below show more detail of each descriptor and a further comparison is made with the Triple E model.

Exploratory	Descriptive	Explanatory
Research whose primary purpose is to examine a little understood issue or phenomenon and to develop preliminary ideas about it and move toward refined research questions.	Research in which the primary purpose is to "paint a picture" using words or numbers and to present a profile, a classification of types, or an outline of steps to answer questions such as who, when, where, and how.	Research whose primary purpose is to explain why events occur and to build, elaborate, extend, or test theory.
(Neuman, 2011)		
Exploratory	**Testing-out**	**Problem-solving**
Research that is involved in tackling a new problem/issue/topic. The work examines what theories and concepts are appropriate and involves pushing out the frontiers of knowledge.	Research to find the limits of previous generalizations. The amount of testing-out to be done is endless and is the way to improve important but dangerous generalizations.	This research starts with a real world problem and brings intellectual resources to bear on its solution. The problem has to be defined and method of solution discovered. This will involve a variety of theories and methods often across disciplines.
Adapted from Phillips & Pugh, (2005)		
Explore	**Experiment**	**Experience**
Gain an understanding of a subject by enquiry and collaboration to define and refine theories.	This is about trying out different concepts in a safe environment, a sand box, or running a small-scale pilot.	Test the theories in practice by using the concepts in a work environment, how do they work in a volatile environment, refine and iterate based on the experience.
Author see Chapter 1 Figure 1.8, page 42 Triple E model		

Table 3.2 Purpose or type of research. (Authors own work and from Neuman (2011) and Phillips & Pugh (2005))

The research being described in this thesis was not limited to one of these descriptors or classifications. There was a problem-solving element in that there was a real-world issue to investigate, the poor project performance within the Council and the model introduced to dissolve this issue required exploration and testing-out and for this reason the dual cycle approach was considered the most appropriate. The exploration took place over a period of years; gaining an appreciation of practices recommended by the Project Management Associations and other organisations and engaging stakeholders within the Council. The model was then tested-out and refined over 5 years with results which will be discussed in Chapter 6.

3.6 Elicitation methods

In the previous chapter, Vickers' concept of appreciation was discussed and this concept was applied to gain knowledge and learn about the issue of project performance within the Council. The appreciative system of learning is cyclical and iterates as new information is gained as shown in Figure 3.4.

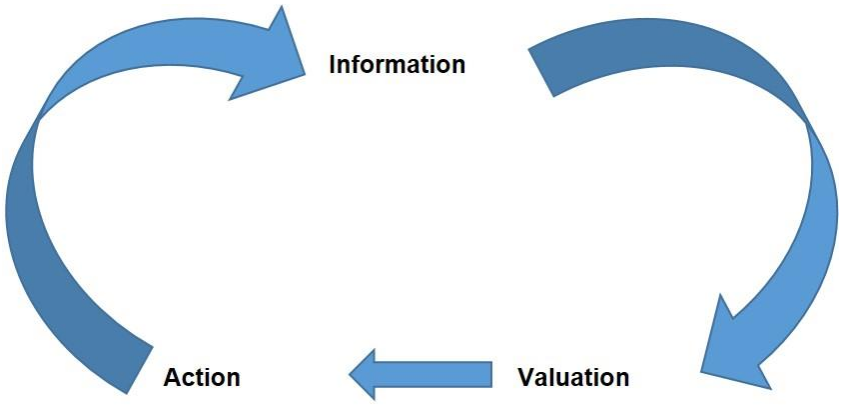


Figure 3.4 Vickers' appreciative system of learning. (Author's interpretation of Vickers, 1968)

This section will provide detail of the sources of the information required to start the cycle, although they also continued throughout the iterations as well as the

new information which derived from the action element of the cycle. The methods used were as follows:

1. Formal and informal discussions with staff across the organisation, this included senior managers, staff involved in project delivery, finance managers and project staff in other organisations
2. Studying of relevant literature – academic articles found in Project Management Journal, International Journal of Project Management, The Systemist, Journal of the Operational Research Society, Systemic Practice and Action research as well as books written from both an academic and practical viewpoint, the Bodies of Knowledge from the Project Management Institute and Association for Project Management, PRINCE2 and Managing Successful Programmes manuals.
3. Investigating the approaches taken by other organisations through posts on the Local Government Innovation & Development Network of Practice, their websites and discussions with staff from other public-sector bodies.
4. Attendance at conferences both academic and practitioner based, combined with discussions with academics and practitioners at these events
5. Workshops, these were the main delivery mechanism for the learning activities and additionally used with project delivery teams to create risk plans, benefit plans, evaluation plans and stakeholder engagement plans.
6. Project retrospectives, these were conducted usually 6 to 12 months following the delivery of the project output and explored what went well, what did not go well, what might be done differently and any other learning.
7. Communities of practice both internal and external with discussions with the attendees.

3.7 Evidence collection methods

The main collection method was a series of semi-structured interviews with the delegates and facilitators of the LPMDP. A total of 25 interviews were conducted, including five second interviews two years after completion of the development programme, and the results are considered in Chapter 6. Further evidence was collated form delegates reflective reports produced after completion of the programme. This data is qualitative and much richer in detail than the business metrics also collected; it is however much more interpretive and subjective.

My position in the Council may have an impact on the interviewees in this research. The role started as a tier 3 manager reporting directly to a Head of Service, this was the state until 2011 when the position began reporting to a tier 3 manager. Both these positions meant I was high in the hierarchy and the role required I communicated and worked with officers both higher and lower within the Council. I attended most of the workshop sessions for project management from early 2008 through to 2012 and I was prepared to *'tell it as it is'* (LPMDP Delegates, 2011 - 2013). I was almost unique, as a senior manager, in assisting in the delivery of workshops, a fact which surprised me as managers have a responsibility to develop staff. I believe my attendance at the workshops over this period and my honesty in discussing the issues helped me to gain the trust from the staff I was dealing with. The interviews I conducted were from the delegates on the LPMDP and the analysis of these interviews will be discussed in Chapter 6. The possibility of the interviewees responding to my position within the organisation and providing favourable responses must be considered, however the responses were deeper than I expected. I anticipated the delegates stating that they had learned about the importance of benefits and planning for instance which were common themes however most stated they had become more confident and gave examples including some delegates who

challenged the status quo and stopped unproductive activities from continuing. These examples were confirmed by their line managers or other staff. Additionally, the interviewees had worked with me on the programme over a period of six months and the possibility of bias in wanting to provide answers that would meet with my approval is therefore inherent in this data. The organisation itself may be another source of influence on the interviewees. Per Alvesson (2003, p. 169) *'The research interview is thus better viewed as the scene for a social interaction rather than a simple tool for collection of "data".'* This author suggests that interviews do not give honest answers to what is outside of the interview '*I don't think it guarantees "truthful" interview statements that give a "realistic" picture'* (Alvesson, 2003, p. 170). The author goes on to suggest using an ethnography as an alternative to rely purely on interviews. Whilst this research was not an ethnographic study, observations of the LPMDP delegates were undertaken to note any changes in behaviour over the six months they attended the programme. The interviews were expected to be subjective from the interviewees' perspective and their interpretation of reality.

The interviews show the approach to the learning was effective in changing behaviours, the delegates' ability to perform better and be more reflective. A gain in confidence was the common theme from the interviews with all the interviewees reporting this as a benefit of attendance although the confidence was manifested in different ways.

A total of 26 delegates also completed reflective reviews following completion of the programme and these have also been analysed and confirm the interview findings of increased levels of confidence and an increased awareness of reflection.

Finally, the business metrics showing the changes in performance of projects and included data such as percentage of project outputs delivered against time

and attendance by the Group Leaders at the corporate project board. This data is quantitative in nature being numerical. The data is explored in detail in Appendix D and reflected on in Chapter 6 and does indicate that the systemic model introduced into the Council improved project performance, with projects realising benefits and interestingly being delivered within cost and time budgets, even though the focus was on the benefits and not on achieving cost and time targets.

3.8 Validation

This research was exploratory in nature consisting of a series of action research cycles for both business issues and the research interests. Throughout the cycles I reflected on the findings and as such I need to be mindful of my bias and perspective from my appreciative settings. These appreciative settings changed over time as data was revealed, reflection undertaken and discussions with my co-facilitator during the programme provided an opportunity to validate my understandings. The data produced was collated from interviews and reflective reports, with the reports requiring delegates to compare progress against a baseline exercise, the benefits to them of the programme and what they had learned. Thus, these reports were directed and delegates knew that these would be assessed, which may have led to answers being what the delegates thought the facilitators wanted. Alvesson (2003, pp. 169 - 170) suggests that interviews are more a social interaction and may not provide truthful answers. The responses from the interviewees were not as I expected with the emphasis on confidence gained; an exciting development. The interviewees were posed four open questions and allowed to talk about their experiences in an open manner. All the interviewees and most report writers claimed an increase in confidence and changes in behaviour. A subsequent set of interviews were conducted with line managers and colleagues of the interviewees. This provided an opportunity for triangulation to gain corroboration

of the delegate's comments. This formed a first cycle of validation of the findings. A second cycle was also performed as discussed in Sections 6.2.5 and 6.2.6 in which interview responses were assessed against Crawford et al (2006) list of specific implications and the Kember et al (2000) questionnaire. This clearly demonstrated that delegates had an improved ability to reflect in their practice.

Rorty (1982) believed that the test of validity of research was that an understanding would change behaviours; the data collected from the LPMDP delegates shows they changed their behaviours. They became more likely to challenge and gained in confidence in all areas. They believed they became more effective; a belief confirmed by their managers. Additionally, my main co-facilitator on the workshops has changed his behaviours and uses active learning in all his development activities.

Figure 3.5 shows visually the research design elements of data collection and analysis considering the comments of Rorty (1982) and Alvesson (2003). Additionally, the cycles of validation firstly by triangulation with other staff and secondly by assessment against Crawford et al (2006), Kember et al (2000) are depicted.

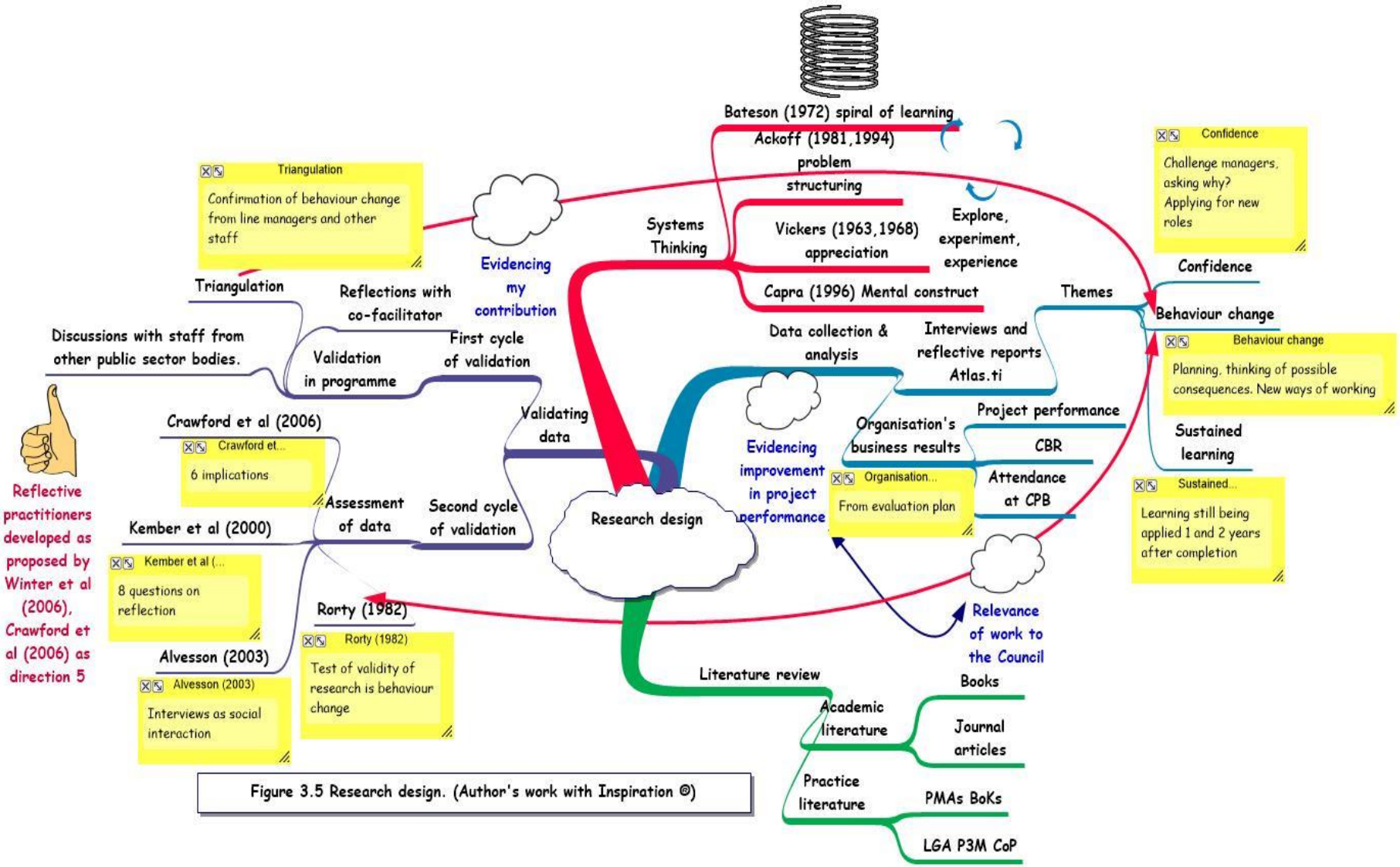


Figure 3.5 Research design. (Author's work with Inspiration ©)

3.9 Conclusion

This chapter has described the approach to design of the research project with its synthesis of dual cycle action research, insider research, and engaged scholarship, an approach which helped dissolve an organisational problem and provided an opportunity for research. The approach to the research was largely determined by the context, I was attempting to solve a business problem; this as part of my job role. So, an insider approach was dictated. In gaining an early appreciation it became clear that the previous interventions had largely ignored the stakeholders thus an approach which engaged all stakeholders was necessary so engaged scholarship was utilised. A dual cycle action research approach seemed appropriate given the need to inquire into a business problem and reflect in and on practice (Schön, 1983, pp. 49, 276), as this process iterated. The pragmatist paradigm was a good fit for as Morgan (2007, p. 69) states

> *'In particular, it is not the abstract pursuit of knowledge through "inquiry" that is central to a pragmatic approach, but rather the attempt to gain knowledge in the pursuit of desired ends.'*

I was engaged in gaining knowledge whilst pursuing the end of improving project performance within the Council. Knowledge was gained as the model iterated and I reflected on the data generated through the three elements of the model. The model shows an approach utilising induction, deduction and abduction as required and this again aligns with a pragmatic approach as Morgan (2007, p. 71) says:

> *'The pragmatic approach is to rely on a version of abductive reasoning that moves back and forth between induction and deduction—first converting observations into theories and then assessing those theories through action.'*

Figure 3.5 shows graphically the model applied to the problem-solving and research elements of this work, with the research paradigms of pragmatism as primary with interpretivism secondary.

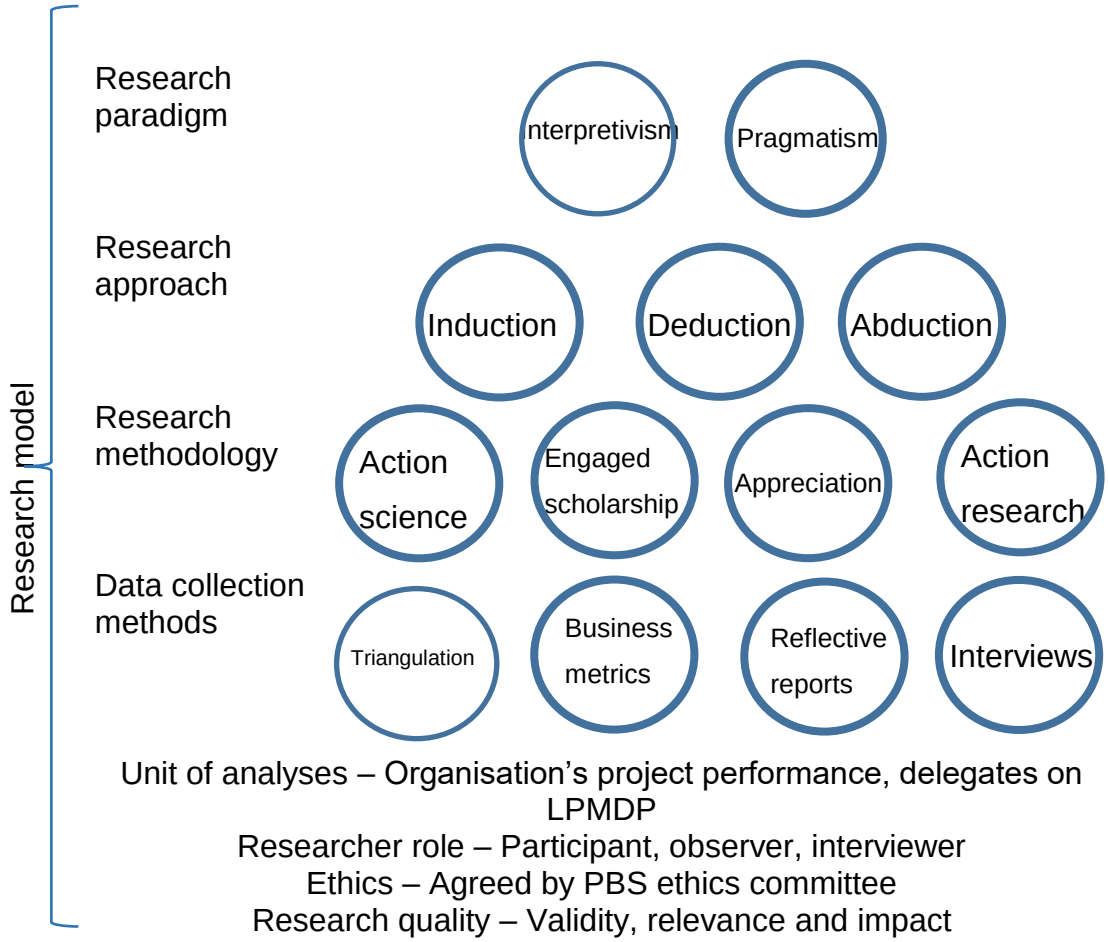


Figure 3.6 Research model. (Adapted from Nogeste 2015).

This model indicates the primary sources and secondary sources of data whichever method was appropriate to the research questions under review. In studying the impact that a Systems Thinking approach had on project performance the main data was the business metrics covering quantitative data for example; number of projects completed within cost and time parameters against total projects under the aegis of the corporate project board. Semi-structured interviews and reflective reports were used to collect data from the

delegates of the LPMDP in which I explored how the experience had changed their behaviours and what behaviours they considered had changed. The data collection methods were not discrete in that each method elicited data that was applicable across the research questions.

Chapter 4 The early learning cycles

This chapter covers the early cycles as can be seen in Figure 4.1which shows the connections between Vickers' appreciation, Ackoff's problem solving and Bateson's spiral of learning.

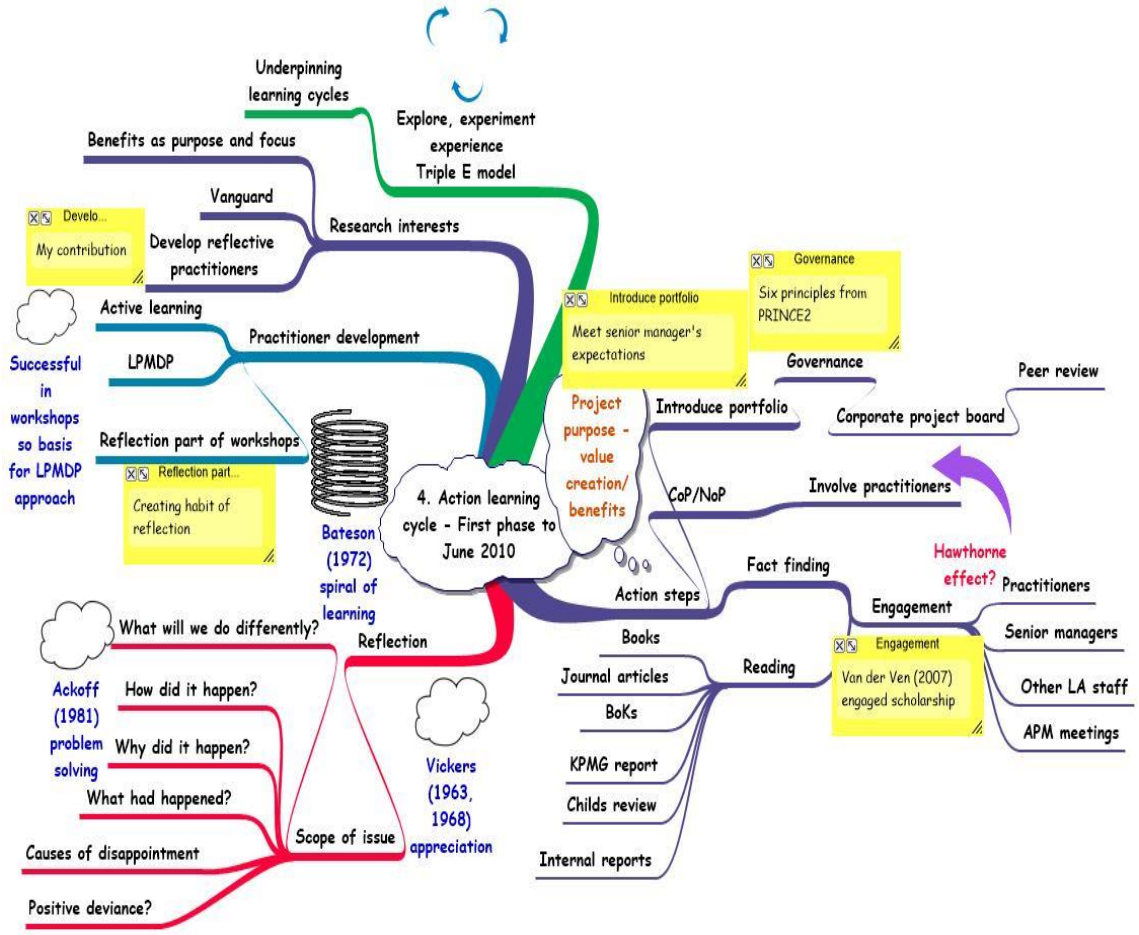


Figure 4.1 Outline of Chapter 4. (Author's work with Inspiration ®)

4.1 Overview

The early cycles will be covered in this chapter and will describe how an appreciation of the problem facing the council was gained and will introduce the model with its three elements, as shown in Figure 3.3 on page 148. This chapter will cover the period to June 2010 and take a stepped approach as shown in Table 4.1 with a section covering each step in the dual cycle. This period covers the design and introduction of the model with all three elements being applied in this period. However, the focus in the early cycles was on the portfolio and community of practice elements. In October 2009, the LPMDP was

run for the first time as a pilot and design and this first running created significant learning.

Steps	Problem-solving cycle	Research interest cycle	My approach
1	Problem identification	Research themes/interests/questions	Explore
2	Reconnaissance/fact-finding about problem context stakeholders and so on	Reconnaissance/fact-finding in relevant literature	Explore
3	Plan the problem-solving activity	Plan and design the research project to answer research questions, hypotheses and so on	Explore
4	Define the action steps		Experiment
5	Implement the action steps		Experiment
6	Reflect upon the impact of the problem-solving actions	Reflect upon the intervention in terms of research interests	Experience
7a	Amend the plan if further changes required and return to step four	Amend the plan and design further explanation and research if required and return to step four	Experience
7b	Exit, if outcomes are satisfactory	Exit, if questions are satisfactorily resolved	Experience

Table 4.1 The problem-solving interest and research interest in action research aligned with the Triple E model. (Adapted from McKay & Marshall, 2001; Nogeste, 2008; Nogeste, 2015).

The dual cycle aligns with the Triple E concept discussed earlier, with explore steps 1, 2 & 3, experiment steps 4 & 5, experience 6 and 7 although step 7a includes the iteration through the cycle, however this is only an approximation as the cycle of explore, experiment and experience was present throughout the steps in Table 4.1. The cycle of problem-solving used a Systems Thinking approach with three elements; top down, the portfolio; bottom up, the learning activities; and left field, the community of practice. Figure 4.2 shows this graphically:

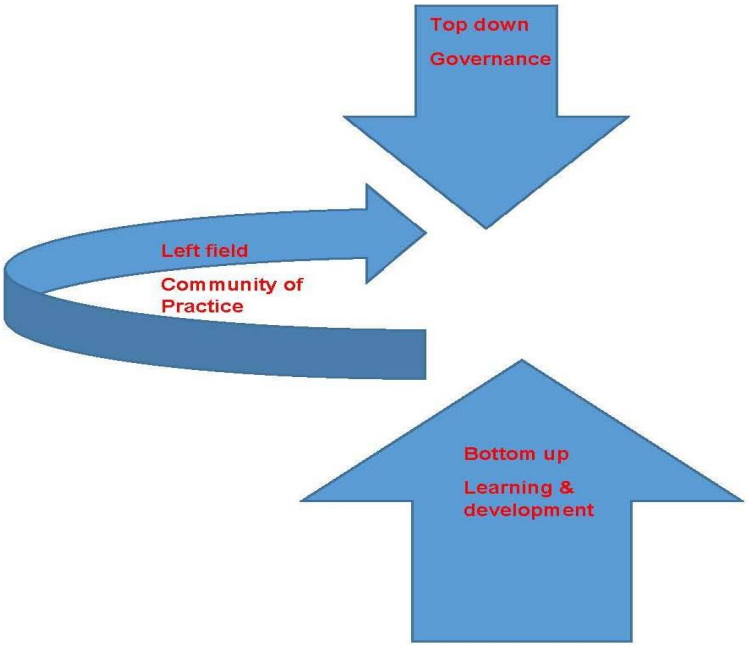


Figure 4.2 Systemic nature of the intervention. (Author's work)

The early stages were mainly concerned with designing and implementing the portfolio element however it is my belief that the most effective way to embed new behaviours is through the organisation's learning and development programme (Senior, 2002, p. 332), and thus the learning and development element was of vital importance in sustaining improved project performance.

4.2 Action research step 1

The first step will explore the problem the Council faced and identify the research interests that emerged from this exploration.

4.2.1 Problem-solving cycle – problem identification

There were two distinct project issues facing the Council; poor performance as highlighted in section 1.6 and Appendix A and how to dissolve this issue as two previous interventions had failed to make any sustainable improvement. Before any implementation could be undertaken there was a need to appreciate the reasons for the disappointing results from the previous interventions as well as from the projects the Council was commissioning. My experience combined with the KPMG report which the Council commissioned in 2007 provided a starting point for dealing with the issues. In examining ways of improving project performance it is necessary to understand the reasons for poor performance and any factors that are affecting performance; gaining an appreciation and understanding of the system of interest. Additionally, I investigated why some projects performed well, looking for *'positive deviance'* (Jackson & McKergow, 2007, p. 214). What factors influenced these? Who were the people involved and how did their competence affect the performance? Good planning and preparation was a commonality in successful projects. The main issues leading to poor project performance in 2008 were identified as follows;

1. Inadequate preparation with project teams rushing straight to the delivery phase without gaining knowledge of what was required, there was limited understanding of the purpose of the project
2. Lack of monitoring during the project lifecycle, this also included inadequate governance arrangements
3. There was a lack of accountability, rarely was anyone held to account for their role in poor performance, as the Audit Commission highlighted following their inquiry into the Spinnaker Tower.

4. Failure was rewarded, in two of the projects discussed in Chapter 1 and Appendix A, the project managers were promoted following completion of the projects compounded by success not being rewarded.

These four issues are an amalgam of my observations and the perspectives of stakeholders and the external consultants, KPMG. The disappointing projects reviewed in Appendix A all exhibited these issues to some extent. Additionally, there was neither understanding nor application of a portfolio approach to the approval of projects, before 2008 projects were approved in an ad hoc manner with no consideration of their alignment with the Council's strategy and objectives.

Table 4.2 provides an overview of which and how stakeholders were consulted, the details garnered contributed to my understanding of the issues and requirements in attempting to dissolve them. I consulted across and outside the organisation garnering data both on the problem areas and potential solutions. All this data however required reflection as in discussing the problem of poor project performance with the Strategic directors, heads of service and others some offered their solutions, all of which required consideration. It was clear throughout the research that different stakeholders saw the problem differently from their own disciplinary perspectives (Ackoff, 1994, p.186; Bignell & Fortune, 1984, p. 165) and which aligned with their beliefs and values.

Problem identification	
Who engaged	**Action**
Chief executive officer	Discussions
City solicitor	Discussions
Strategic directors board	Discussions
Heads of service	Discussions
Project managers	Discussions & workshops
Support managers	Discussions & workshops
Project and Programme Management Network of Practice (Local Government Innovation and Development, 2008 - 2015)	Comparisons with other organisations
Project delivery teams	Discussions & project retrospectives
Finance managers	Discussions
Political group leaders	Discussions
Corporate project board	Discussions
Project management group	Workshops
KPMG	Contributed to and read report

Table 4.2 Stakeholder engagement. (Author's work based on Van de Ven 2007)

4.2.2 Research interest cycle - themes/interests/questions

In the early stages of this work it was clear that several potential avenues of research were possible. The five directions from the RPM network suggested some research questions, also the Vanguard method which was proving popular with local authorities provided a further theme to explore. I did explore Vanguard as discussed in section 2.5.4 on page 120, however decided that it was not feasible to build a model solely based on this method. Notwithstanding this, researching Vanguard was still a live possibility until early in 2011. Other potential research interests were exploring Direction 5, developing reflective practitioners, which was of interest due to my belief in education as a way of improving performance and direction 3 moving from a focus on product creation to one of value creation. Chapter 7 considers potential future research.

4.3 Action research step 2

The fact-finding step involved discussions with stakeholders and reading reports, books, articles and bodies of knowledge to gain an appreciation of the issues and the requirements of the stakeholders.

4.3.1 Problem-solving cycle - fact finding

Vickers' appreciation and The Solutions Focus model were utilised so that the focus was on dissolving the issue and activities undertaken to achieve this end. This moved the focus from the problem onto achieving dissolution of the problem. The Council needed to improve project performance and become more efficacious in its commissioning and executing of projects. By questioning the various stakeholders, I could determine what success would look like. These communications were a continuous activity throughout the intervention. The purpose of the communications evolved over time as the model was implemented and project performance improved. Table 4.2 below shows the differing modes of communication across the timeline of these cycles. The phases were not discrete as shown as the communication modes went across each phase. This table represents a simplification of the actuality.

Communication mode by phase			
Stakeholder	**Early**	**Mid**	**Late**
Chief executive officer	Data gathering.	Feedforward & feedback on progress.	Feedforward & feedback on progress.
City solicitor	Data gathering.	Feedforward & feedback on progress.	Feedforward & feedback on progress.
Strategic directors	Data gathering.	Feedforward & feedback on progress.	Feedforward & feedback on progress.
Strategic directors board	Data gathering.	Feedforward & feedback on progress.	Feedforward & feedback on progress.
Heads of service	Data gathering.	Feedforward & feedback on progress.	Feedforward & feedback on progress.
Corporate project board	Data gathering projects update and approvals.	Feedback on progress projects update and approvals.	Feedback on progress projects update and approvals.
Project management boards	Coaching, mentoring, providing guidance & advice. Facilitating workshops.	Coaching, mentoring, providing guidance & advice. Facilitating workshops.	Coaching, mentoring, providing guidance & advice. Facilitating workshops.
Project managers	Data gathering & workshops.	Coaching, mentoring, providing guidance & advice. Facilitating workshops.	Coaching, mentoring, providing guidance & advice. Facilitating workshops.
Support & resource managers	Data gathering & workshops.	Feedforward & feedback on progress.	Feedforward & feedback on progress.
Project and Programme Management Network of Practice	Comparisons with other organisations. Action learning set.	Discussions with project staff in other local government organisations. Action learning set.	Sharing experiences
Project delivery teams	Data gathering & project retrospectives.	Coaching, mentoring, providing guidance & advice. Facilitating workshops & project retrospectives.	Coaching, mentoring, providing guidance & advice. Facilitating workshops & project retrospectives.
Project management group	Focus groups/Workshops. Data gathering, sharing experiences and any lessons learned from the project retrospectives.	Focus groups/Workshops. Data gathering, sharing experiences and any lessons learned from the project retrospectives.	Focus groups/Workshops. Data gathering, sharing experiences and any lessons learned from the project retrospectives.

Table 4.3 Method of communication by phase. (Author's work)

Prior to 2008 two attempts had been made to improve project performance nonetheless the organisation was still subject to Audit Commission review and generally projects still failed at some level. The first attempt, introduced in 2003 following the Childs review (Childs, 2004) into the Spinnaker Tower project, at

improving project management concentrated on providing PRINCE2 training as a solution combined with project review boards to monitor projects. Consequently 30 staff gained their PRINCE2 practitioner certifications, however there was no follow up once back in the workplace, the assumption being that the council had adequately trained project managers.

The second attempt started in 2005 and culminated in the KPMG report in 2007 and fared no better in improving project performance. This intervention introduced a new project management methodology PROMPT, based on PRINCE2, a training workshop and the establishment of a project manager's knowledge network designed to share good practice. This became a lecturing/hectoring session by the head of project management and soon attendance fell with the last meeting conducted in a corridor.

These attempts at improving project management performance were aimed at resolving, there was no attempt at dissolving the issue. There was also a tight focus on project management and specially control of budgets and timescales with little appreciation of achieving benefits from the work.

4.3.2 Research interest cycle – reconnaissance of relevant literature

The literature was subject to a constant review throughout the cycles and this applied to all the disciplines. Chapter 2 provides a review of the main literature with additional detail being added in this section. In the early fact finding stages the literature on project success and failure was reviewed and especially the work by The Standish Group (1995, 1999, 2009, 2013) and Nelson (2005,2007) to investigate causes for failure as well as success factors, although many authors report project failure causes and success factors (Agarwal & Rathod, 2006; Al-Ahmad et al., 2009; Cooke-Davies, 2002; Flyvbjerg et al., 2003; Labib

& Read, 2013; Marchand & Hykes, 2006; Serrador & Turner, 2014; Shenhar, Dvir, Levy, & Maltz, 2001). Cooke-Davies (2000, p. 40) suggests that *'shopping lists of key reasons are produced*' and I felt these shopping lists did not delve deeply enough into the causes of disappointing results from projects. Despite these numerous contributions projects still disappoint in their results (Besteiro, Pinto, & Novaski, 2015; Calleam Consulting Ltd., 2014; Computing, 2011; Coombs, 2015; Hammer, 2015; Kapsali, 2013; Matthews, 2016; Serrador & Rodney Turner, 2014; Stanley & Uden, 2013; The Standish Group, 2013; Thomas & Mengel, 2008), suggesting a rethink is needed of what is failure and success. The Summer 2017 issue of Project shows that disappointing results continue albeit in the oil and gas sector (Notton, 2017). Historically project success has been measured against the triple constraints of cost, time, and quality; often referred to as 'the iron triangle' (Atkinson, 1999; Cicmil, Cooke-Davies, Crawford, & Richardson, 2009; Cooke-Davies, 2000; Ika, 2009; Jenner, 2011). Quality may mean meeting technical specifications; however, quality is a subjective concept and will depend upon the perspective of the judge (Ika, 2009, p. 8). This view of project success is very narrow and causes the focus of those involved in project delivery onto an output delivered to time, cost and quality. The Standish Group (2009) define project success in terms of time, cost, and quality requirements, and state that an unfinished project constitutes a failure. This definition ignores that closing a project early, and thus preventing further unproductive spend, is a sign of mature project management and in constantly changing organisational environments, a decision to cancel a project that is no longer likely to deliver the expected benefits should be applauded as a success. My reflections also suggested *'inattentional blindness'* (Chabris et al., (2011); Simons and Chabris (1999) from focussing on producing an output to cost and time budgets rather than considering the creation value through the realisation of benefits was a possible root cause.

The Standish Group definition neglects to consider the realisation of benefits from the project, as advocated by Bradley (2006); Lin and Pervan (2003) Jenner (2010, 2011); Marnewick (2016); Serra and Kunc (2015); Summers (2011) and Kerzner and Saladis (2009). The Standish Group's CHAOS reports also fail to consider the return on investment from project outcomes. However, The Standish Group (2014b) in its April 2014 newsletter stated they had conducted a survey of the Standish User Research Forum (SURF) members and the newsletter concludes by stating

> *'The Standish Group believes that organizations should forget the triple constraints and focus on the value of their project portfolio, not individual projects.'*

This is a major change for The Standish Group and a more holistic view with a clear departure from the Project Management Institute's position of success being measured by conformance to the triple constraint.

Additional to the literature on project success and failure I read the PRINCE2 and Managing Successful Programmes manuals basing the governance of the portfolio element on PRINCE2 using six of the seven principles, which PRINCE2 is based upon. These are:

1. *management by stages,*
2. *management by exception,*
3. *roles and responsibilities,*
4. *continued business justification,*
5. *tailored to the project environment*
6. *learn from experience*
7. *focus on delivery of products* (Office of Government Commerce, 2009)

Of these seven principles, the first six where utilised in the governance of the portfolio element. The focus on delivery of products principle was excluded due to my belief that projects were best considered more systemically as explained

in section 2.2 and projects were redefined with the purpose of realising benefits rather than the historic definition of *'…delivering outputs to cost and time.'* This will be explored further in section 4.4.1 below.

Pant and Baroudi (2008, p. 124) state the case for a '…*balanced approach between hard and soft concepts…'* thus *'…enhancing project management education in the process.'* In designing the practitioner development activities, a balanced approach was a design and content goal. The active learning activities considered have been detailed in section 2.4.5 on page 88.

4.4 Action research step 3

The third step involves the design and planning of both the dissolution and research project bringing together the information collated in the previous steps and working towards an introduction of the model into the organisation.

4.4.1 Problem-solving cycle – design and planning

The engagement with the stakeholders combined with my studies and observations gave me an appreciation of the issues faced by the Council enabling me to design a model as shown in Figure 4.3 below. I recognized two major problems which required attention. The initial one being the poor performance itself, the second how to sustain any improvements leading to a dissolution of the issue. To meet these two requirements, I designed a model consisting of three elements wrapped around with communication. The elements were, a portfolio approach, formal education of practitioners, and a network of practice so those involved in projects could share experiences. This model considered multiple perspectives including project staff at all levels from across the authority, finance staff, procurement professionals, internal audit as well as senior managers, including corporate risk and strategy. This provided a

transdisciplinary viewpoint and as the work progressed, other perspectives emerged and were considered. The portfolio approach and the community and network of practice were the first introduced into the Council. This was largely to satisfy influential stakeholders being seen to be doing something, with the *'zeal for doing'* (Dewey, 1934, p. 46) strong within the Council's culture frequently detrimentally so. Nonetheless the senior stakeholders expected activity and it was sensible to introduce the portfolio element early. However there was a need to bring about dissolution of the issue and this I believed required a comprehensive educational approach. This belief stemmed from my years of experience that dissolution needed to involve unlearning and learning. The community of practice and amendments to the existing development offering helped provided initial impact in the area of practitioner development. In Chapter 2, section 2.4.6 communities of practice were explored which Wenger & Wenger-Trayner, (2015) define as '…*groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly.'* I resurrected a previous community and these practitioners, much to their surprise and delight, were involved in the design of the portfolio arrangements, this may have invoked the Hawthorne effect (Mayo, 1949), whereby productivity is increased due to interest being shown in the workforce.

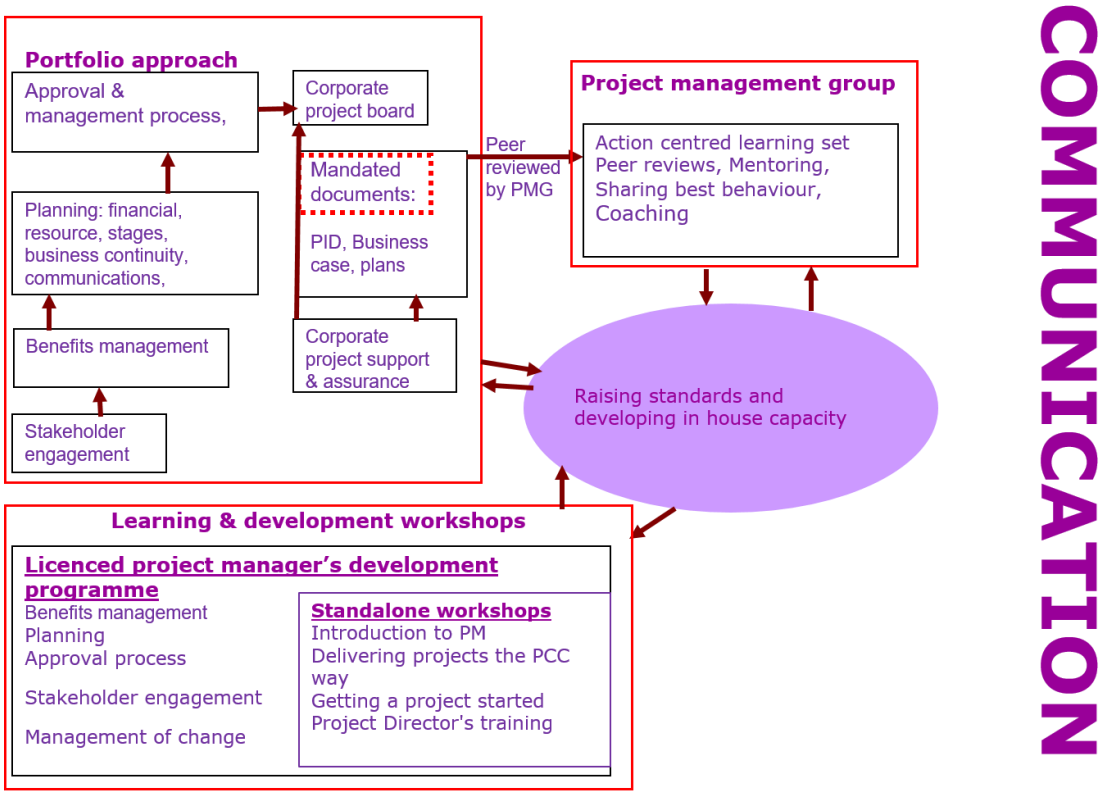


Figure 4.3 Model with the three elements wrapped by communication. (Author's work.)

Appendix B provides further detail of the portfolio element of the model's design and planning.

Communications went two ways and an appreciation of the different views and perspectives of the various stakeholders was obtained. These differing appreciative settings were synthesised and valuated before action was taken on this data. This process was reiterated throughout this research, Table 4.4 showing the actors engaged.

Problem-solving	
Who engaged	**Action**
Strategic directors board	Discussions, Reports on progress, Annual meetings to inform
Heads of service	Discussions, Annual meetings to inform
Corporate project board	Reports on progress, feedback received
Project and Programme Management Network of Practice (Local Government Innovation and Development, 2008 - 2015)	Discussions around findings in other organisations
Project management group	Discussions & workshops
Project delivery teams	Project retrospectives

Table 4.4 Engaged scholarship - throughout design and cycles. (Author's work based on Van de Ven 2007)

4.4.2 Research interest cycle – design and planning.

The design of the research has been covered in Chapter 3 and applied action research through a series of dual cycles. Data was gained from the problem-solving cycle which then informed the research cycle, through my appreciation of this data I believed the development of reflective practitioners was a better focus for my research than Vanguard. This change occurred in the second phase which will be discussed in the next chapter. This required an educational approach which I thought would develop reflective practitioners and help dissolve the issue rather than provide just resolution. This change of focus is acceptable in an action research project as it is *'quite usual to make substantial changes'* (Kemmis & McTaggart, 1992, p. 89) especially in the early stages. Table 4.5 shows the actors engaged in the scholarly activity of theory building.

Theory building	
Who engaged	**Action**
Chief executive officer	Discussions
City solicitor	Discussions
Project and Programme Management Community of Practice (Local Government Innovation and Development, 2008 - 2015)	Discussions with project staff in other local government organisations Formed action learning set, met five times discussing benefits management
Lean and Systems Thinking Community of Practice (Local Government Innovation and Development, 2009 - 2014)	Discussions especially about learning and education approaches
Project managers	Discussions
My predecessors	Discussions

Table 4.5 Engaged scholarship research interest cycle theory building. (Author's work based on Van de Ven 2007)

4.5 Action research step 4

This step involved the design of the actions to be taken across both cycles.

4.5.1 Combined problem-solving and research interest - define action steps.

The following steps were determined as being necessary to meet the dual problem solving and research requirements in the early cycles.

1. Agreement by senior managers of the model, this was given early in 2008, agreeing the outline model with the three elements.
2. Agreement by stakeholders of the requirements of the approval process, this took place in 2008 and final approval was given in October 2008 by the corporate project board. Input was received from the practitioners as well as senior managers.

3. Collation of projects across the organisation, this would assist the new corporate project board in appreciating the totality of projects, enabling a portfolio approach.
4. Classification of projects, a scoring system was introduced for projects assessing against five criteria, cost, political impact, organisation impact, service impact and complexity, this determined the level of governance required.
5. Attend the ‘Introduction to project management’ workshops to determine any changes needed. This led to the redesign of this workshop onto active learning and will be discussed further in Appendix D. The application of active learning approaches ensured the delegates participated in activities which they allowed them to reflect on practice. Each activity was followed by a period of reflection thereby making the reflection habitual.
6. Attend Research methods unit at University of Portsmouth. This was mandatory required on registration as a post-graduate student.
7. Design and facilitate new workshops. It was clear that a single workshop was inadequate to raise standards and develop in house capacity and competence. Two new workshops were designed using active learning approaches before the LPMDP was introduced.
8. Resurrect the community of practice. There had been a group known as the project management knowledge network started as part of the second intervention with around 30 project managers meeting monthly. Whilst this was initially welcomed by the project managers over time it fizzled out with low attendance. These meetings however tended to be transmissive in nature with the manager responsible for project management talking at the audience with minimal engagement by other staff. Given this approach it was no surprise that attendances fell away.
9. Initial design and pilot of LPMDP. This is covered in more detail in section 5.4.1 and Appendix C.

4.6 Action research step 5

In this action research step the actions are implemented and as in step 4 are considered across both the dual cycles of problem-solving interest and research interest.

4.6.1 Combined problem-solving and research interest - implement the action steps

The actions taken during these early exploratory cycles comprised

1. Data collection from existing projects, this involved reading the documents where available and liaising with the services across the Council to produce a list of current projects.
2. Reading numerous contributions to project management practice and other areas of the research including Winter & Smith, (2006); Winter, et al., (2006).
3. Reflecting on my previous experience and synthesising with the experiences of others both internal and external to the Council. This contributed to the model design especially the portfolio element. From this reflection though came a belief that a programme of practitioner development was necessary to sustain performance improvement.
4. Design the model with contributions and review by project practitioners. The model is shown graphically in Figure 4.3 on page 184, with the three elements of portfolio, a community of practice and practitioner development workshops.
5. Review the existing practitioner development activities by attending ‘The introduction to project management’ workshop and implementing changes from mainly transmissive to greater delegate engagement. This

evolved over time with the format of the session changing, with group elicitation first, followed by activities to reinforce the learning and then a period of reflection.

6. Redesign the existing workshops and determine and introduce future workshops and development activities. The ‘Introduction to project management’ workshop was redesigned and following the introduction of the project approval process into the organisation a further workshop was developed and titled ‘Delivering projects the PCC way’. A third workshop was added ‘Getting a project started’ in which the requirements following the approval of a project mandate and leading to the production of the project initiation documentation were explored. In addition, sections were included on the various teams in the organisation who needed to be informed and involved in the project, e.g. Finance, Legal, Information Technology, Media, Risk and Insurance.
7. Successful completion of the Research Methods unit at University of Portsmouth.
8. Reinvigorate the community of practice and engage in the portfolio design. A database of staff who were delivering projects or had attended the one-day course, Introduction to project management, had been created and using this together with personal knowledge I resurrected this group early in the intervention, retitling as the project management group.
9. Design and pilot first iteration of LPMDP. The design was based on my experience of a management development programme I had undertaken some years previously and my Master’s degree. This involved workshops, tutorials, learning labs and a live project. Further details are provided in Appendix C.

The model was introduced into the Council in stages with the projects managers' group reconvened and broadened from the earlier group. The portfolio element was designed in consultation with this group and senior managers. In the early stages although the emphasis was placed on the portfolio arrangements, community and network of practice, the practitioner development was also tackled albeit to a limited extent.

Following attendance at the 'Introduction to project management' workshop the first change I made in this workshop was to redefine projects with the purpose of the realisation of benefits. Consequently, in all future workshops the project purpose of realising benefits became paramount and the underpinning principle for all future work. The method of delivery was also changed with delegates being split into groups of five or six and sat in cabaret style or restaurant style as shown in Figure C.4 on page 296.

The delegates were set a series of questions to discuss in their groups and then feedback their findings to the whole cohort. This provided the explore part of the Triple E model as shown in Figure 1.8. The first question was a simple *'why does the Council commission projects?'*. Other questions would then be posed so that the facilitators were eliciting information (Ackoff & Greenberg, 2008) from the delegates who varied in experience and knowledge. After each of the questions and feedback there was a discussion to explore the subject further with examples from the Council's portfolio to assist in grounding the topics in practice. There were also activities to further reinforce the learning and constituted the experimentation part of the active learning model. The delegates then reflected on the activities, considering how could they apply the learning into their practice.

4.7 Action research step 6

This section will reflect upon the efficacy of both the problem solving and research approaches during the early exploratory stages.

4.7.1 Reflect upon the impact of the problem-solving actions.

The initial approach was the introduction of an approval process and whilst a six-stage process had been agreed in outline by the Council this was lacking in detail and how it would work in practice. The initial meetings of the community of practice provided these details, with agreement on mandatory documents and classification criteria amongst others. This empowered those responsible for executing projects to influence the portfolio element especially the governance of the model. The approval process also introduced peer review of project documents prior to submission to the corporate project board. This provided a feedback mechanism for project managers and learning opportunities on occasions. As soon as I was aware of any project I would meet up with the project manager and discuss whom within the organisation needed to be informed of their project. This allowed the appropriate resource managers to be apprised of requirements as to staff and when required thus improving the management of staff within areas such as legal, IT, finance and media amongst others. The practitioners were mainly supportive of the portfolio process however one practitioner was vocal in claiming the approval process would add an unacceptable overhead to projects. The interesting point is that the programme he was responsible for was subject to government oversight with a full-scale review at the various gates; far more of an overhead than my proposals. The response by this practitioner was unexpected and seemed irrational given the oversight his programme was subjected to. Undoubtedly

there was some underlying rationality for him, albeit one I never discovered and this was useful learning for me.

Another key piece of learning which I shared with the delegates on the workshops was how nervousness and fear can lead to the ignoring of stakeholders. This may lead to projects being negatively affected. I nearly ignored a stakeholder of high interest and high influence during the design of the approval process. This was a strategic director who had been involved in the first intervention following the enquiries into the Spinnaker tower project. Fortunately, I did engage with this stakeholder and consequently adopted and adapted the work flow which had been introduced as part of the first intervention. In reflecting on this near omission, which would have had serious consequences for the acceptance of my model, the cause was largely due to the strategic director's involvement with the earlier interventions which I assumed would pre-dispose him against a new approval process. This view did have a kernel of truth as when I engaged with him he stated *'I can't see what's wrong with the project review boards'* which had been introduced after the Spinnaker Tower project first enquiry. I spent time explaining the new process and how project management boards would work. This I did successfully as later in a project management board meeting he stated that the board was not a democracy and as project director he made the decision to delay the opening of a new school by six weeks. This decision was made against the wishes of the ward councillor and unquestionably took courage. It also evidenced he had read the responsibilities of the project director role that I had written and was prepared to act on them. It was extremely important to influence this stakeholder as he was a project director on several in-flight projects and his management responsibilities gave him considerable power. This incident also meant I could emphasise with practitioners when dealing with stakeholders and how our assumptions can lead to omissions and incorrect assessments.

The attempt to dissolve the business problem had a quick win due to a project with no valid business justification being stopped, saving £4.2 million in prudential borrowing. This also provided an early validation of the benefit of undertaking peer reviews of documents. Another major area of reflection was positive deviance of projects. I considered which projects were considered successful both internally and externally and reflected on any commonalities. In-house there were some successful projects which are discussed in Appendix A, however my main deliberations concentrated on research projects and those in the creative industries such as film making, writing of books, producing music albums and tours. It seemed that these projects were characterised by a focus on results, e.g. film success is measured at the box office or Academy Awards rather than simply an output to cost and time. The same applies to authors and their books and musicians and their albums and tours. This is an area worthy of further research and provided some justification for the approach I followed.

By the close of this first period the portfolio element had been successfully introduced, practitioners were actively listened to and encouraged to reflect upon the changes made through the community of practice although by June 2010 the attendance was falling. The corporate project board was meeting monthly although this was to last only another few months before quarterly meetings were resumed. The Head of my service considered the corporate project board to be very successful. The first iteration of the LPMDP had completed albeit to a mixed response from the delegates. My co-facilitator and myself reflected upon every session immediately following them. We reflected on how to improve, discussing what went well and what not so well. These reflections were very deep and a strong belief in the value of the approach was required to maintain the active learning approach. The delegates often found this approach uncomfortable, although on conclusion of the programme they recognized its worth as the interview and reflective report data evidence. Considerable work was undertaken to improve this programme ready for the

next iteration in October 2010. All in all, a satisfactory position however whilst there was progress with developing reflective practitioners this element needed more work and the next period of cycles focused on this element of the model.

4.7.2 Reflect upon the intervention in terms of research interests

Throughout this first period the research was mainly focussed on using Systems Thinking to improve project performance and designing a model to effect improvement in the Council's projects. At the end of this first period of cycles no data had been collected although two papers had been accepted by academic conferences for presentation in September 2010. These provided a critique of the Vanguard methodology (Seddon, 2008) which was still a research interest at this stage. Other avenues were beginning to emerge and early in the second period the research interest became the development of reflective practitioners. The exploration of Vanguard whilst ultimately not a big part of this thesis assisted with my critiquing of methodologies and in developing my understanding of Systems Thinking and the final formulation of research questions. This was an exploratory research project and as such the area of interest moved focus throughout; further reflection following my departure from the Council suggested other areas of interest which will be discussed in Chapter 7.

4.8 Action research step 7

This action research step determines whether to amend the plan or exit if satisfactory results are obtained.

4.8.1 Problem-solving cycle - amend the plan if required or exit

The plans were regularly reviewed and progress monitored throughout these cycles and the situation in June 2010 was considered satisfactory with significant improvement being evidenced. The Audit Commission had in November 2009 determined our progress as good with the direction of travel rated very good. Consequently, the Audit Commission ceased their annual reviews of the Council, a significant milestone which recognized the improved project performance. The next chapter will provide detail of the later cycles in which the model matured, especially the LPMDP. The senior management as the main stakeholders were satisfied with the progress; projects were producing improved return on investment, and as my Head of service commented *'the heat was being taken out of project management',* therefore *e*xiting the problem-solving interest element of the action plan was appropriate with progression onto the next cycles.

4.8.2 Research interest cycle - amend the plan if required or exit

The research interest was, at the end of this stage less well defined although there had been a great deal of reading of relevant literature across the three disciplines, however I was registered as a part time student and progressing in line with my plan. The next cycle enabled a much more focussed approach to the research interest as will be shown in the next chapter.

4.9 Concluding remarks

This chapter provides an overview of the early learning cycles, demonstrating the design of the model which was introduced into the Council. Mezirow's three types of reflection were utilised with content reflection considering the issue of

poor project performance and why it was an issue despite the previous interventions. Process reflection considered ways to apply Ackoff's problem solving model to dissolve the issue and premise reflection helped to challenge the underlying assumptions, mine as well those of the organisation.

Detail of the action steps taken has been shown as an overview as within the period covered the Triple E model was iterated on several occasions. The plans to dissolve the project performance issue were advancing satisfactorily with the portfolio element embedding, the community of practice having contributed significantly to this system was just beginning to lose attendance. The development activities had led to redesign of the 'Introduction to project management' workshop and the addition of two additional workshops entitled 'Delivering projects the PCC way' and 'Getting a project started' all using active learning approaches to deliver the material. The first iteration of the LPMDP had been completed and reflection on how to progress this programme had been undertaken.

The chapter has provided an outline of the early learning cycles which resulted in a model being introduced into the organisation. This was designed to be holistic and I believed that for improved project performance to be sustained there had to be a strong educational focus, both formal and informal. The next chapter details the second phase of learning cycles when the focus was very firmly on dissolving the problem and provided a sustained improvement. This was through the vehicle of the LPMDP which dominated the second phase of cycles.

Chapter 5 The later learning cycles

This chapter follows on from the previous one and covers the period July 2010 to December 2012 with the topics considered shown graphically in Figure 5.1.

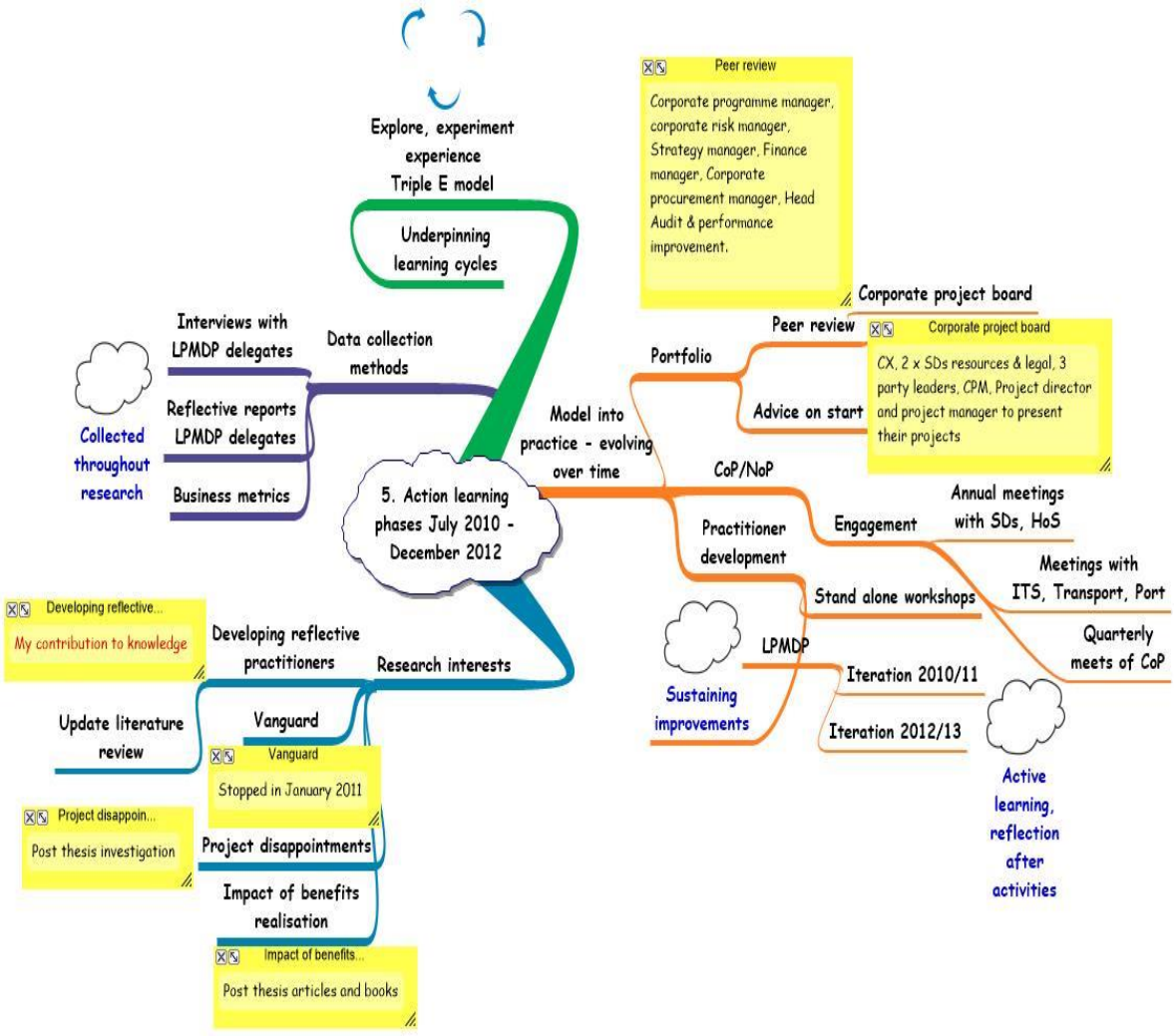


Figure 5.1 Outline of Chapter 5. (Author's work with Inspiration ®)

5.1 Overview

The focus in this chapter will be the two iterations of the LPMDP which took place in this phase. The research interest focussed on the development of reflective practitioners and data was collected in this phase.

A stepped approach as in Chapter 4 and Table 4.1 will be taken showing the actions and reflections upon those actions.

5.2 Action research step 1

The main problem-solving activity was undertaken in phase 1 as shown in section 4.2, however, dissolution of the issue was my goal and this required the improvement be sustained. Although this was identified as a problem in 4.2.2 this phase was mainly concerned with sustainability and refining the research interests.

5.2.1 Problem-solving cycle – problem identification

The portfolio element was embedded so the issue of sustaining the improvements became the focus. I felt an education approach, both formal and informal was required for sustainability and my reflection in the early cycles strengthened this belief. The LPMDP was designed and the delegates tended to be early career project practitioners so the community of practice became a vehicle to reach more senior practitioners who had not attended any of the formal workshops. Additionally, I met with project managers in their workspaces to provide advice throughout the life of their projects and ahead of attendance at the corporate project boards. In designing the LPMDP the challenges and specific implications for practitioner development as stated by Crawford et al.

(2006, pp. 724 - 725) and shown in section 2.3.5 on page 87 were considered and the programme designed to meet these challenges. The detail of the programme design is considered in Appendix C.

5.2.2 Research interest cycle - themes/interests/questions

Coming into this phase there were several research themes and interests and heading into 2011 comparing Vanguard with project management was the focus. Following my interview with John Seddon in January 2011 as I reflected upon our discussions I realised that pursuing this research interest was not the best of choices. There was little interconnectivity with the RPM network framework and obtaining data from Seddon's client organisations proved difficult. There were still research themes and interests to pursue; developing reflective practitioners, moving from product creation to value creation, the epistemological basis of projects and the narrative of the organisational intervention. Gradually as this phase progressed with much reflection and discussion with some stakeholders, developing reflective practitioners emerged and became the paramount theme. This theme led to the formulation of two research questions;

> *1. Would a development programme based on active learning develop reflective practitioners?*
> *2. What impact would such a development programme have on project performance?*

Table 5.1 shows the stakeholders engaged and actions taken throughout this phase leading to the final research questions.

Research design	
Who engaged	**Action**
Project and Programme Management Community of Practice (Local Government Innovation and Development, 2008 - 2015)	Discussions with action learning set.
Lean and Systems Thinking Community of Practice (Local Government Innovation and Development, 2009 - 2014)	Hot seat discussions especially around learning.
University of Portsmouth graduate school	Attend workshops. Reflect on content and application to my work.
Author	Read and reflect on literature and theses. Reflect on feedback
Conference audiences	Feedback on presentations

Table 5.1 Engaged scholarship - research design. (Author's work based on Van de Ven 2007)

Having arrived at the research questions consideration of how to collect data which answers those questions becomes paramount. This is considered in section 5.3.2 as part of the further reconnaissance of relevant literature.

5.3 Action research step 2

The fact finding in this phase built on and expanded the earlier work shown in Chapter 4.

5.3.1 Problem-solving cycle - fact finding

Throughout the problem-solving cycles data was collected to determine if the intervention was having an impact in its purpose of improving project performance. This was complemented by annual discussions with the Strategic directors and Heads of service to garner their perspective on the performance of projects. A maturity assessment was conducted early into this phase which enabled a comparison with one conducted in 2007 before my intervention. This evidenced that the intervention was proving successful in improving project

performance as will be discussed in the next chapter. Table 5.2 shows the actors engaged in this phase of fact finding.

Problem-solving cycle - fact finding	
Who engaged	**Action**
Strategic directors board	Canvas perspectives
Heads of service	Canvas perspectives
Corporate project board	Collate feedback on progress
Project and Programme Management Network of Practice (Local Government Innovation and Development, 2008 - 2015)	Discussions on practitioner development activities in other public-sector organisations
Project management group	Input into content of workshops
Co-facilitator	Reflection on development activities
Organisation	Completion of maturity assessment

Table 5.2 Engaged scholarship – fact finding. (Author's work drawing on Van de Ven 2007)

5.3.2 Research interest cycle – reconnaissance of relevant literature

The literature was subject to a constant review throughout the cycles and this applied to all the disciplines. Chapter 2 provides a review of the main literature with additional detail being added in this section. Following the design and pilot iteration, the LPMDP was amended and iterated two further times which required further review of relevant literature. Sources such as Claxton and Carr (2004); De Bono (1976); Deakin-Crick (2007, 2009); Hodges (2011); Jaros and Deakin-Crick (2007); Jensen (2008); Kirkpatrick and Kirkpatrick (2005); Lee (2004); Moon (2004); Ojiako et al. (2008); and Robinson (2011) were drawn on and applied to the development programme and other workshops. There is evidence to suggest that active and experiential learning can produce continuous and reflective learners (Deakin-Crick, 2007; Mintz, 2014; Waltz, 2014), and different active learning approaches as detailed in section 2.3.4 were experimented with.

In all the workshops delegates working in teams were expected to elicit knowledge (Ackoff & Greenberg, 2008) about the subject before further exploration and experimentation, and the *'spaced repetition of key ideas, and the interleaving of different but related topics'* (Brown, Roediger III, & McDaniel, 2014, p. Preface x) was applied. The concept of spacing is shown by Kornell, Eich, Castel, and Bjork (2010, p. 498) to benefit both memory and inductive learning. Throughout the learning sessions the interconnectedness, interdependencies and interrelationships of the project activities were repeated and made explicit.

The assessment of the impact of the programme was considered and a great deal of thought and reflection applied, the work of Kirkpatrick and Kirkpatrick (2005a, 2005b, 2007); and Phillips (1997) was considered as a means of assessing impact on the organisation and behaviour change. Authors such as Kember et al. (2000); and Van Velzen (2004) have proposed questionnaires for assessing students' ability to reflect. More recently Mirzaei et al. (2014a, 2014b); and Naghdipour and Emeagwali (2013) have produced instruments to assess reflective thinking skills. In interviewing my delegates, the questions posed were intended to assess their ability to think reflectively and these align with Kember et al. (2000, p 395) questions on reflective thinking. This instrument has 16 questions arranged in four sections of four covering Habitual Action, Understanding, Reflection and Critical Reflection. In section 6.2.5 my findings will be compared with the questions in the Reflection and Critical Reflection sections from this questionnaire.

5.4 Action research step 3

The third step involves the design and planning of both the dissolution and research project bringing together the information collated in the previous steps

and working towards sustaining the significant improvement seen during the first phase.

5.4.1 Problem-solving cycle – design and planning

The LPMDP was designed based on eliciting from the delegates and building on their knowledge through a series of exercises and activities which explored and allowed experimentation. Delegates were deliberately pulled from their comfort zone to encourage their learning and understanding. The exercises were designed to create tension with ambiguity and uncertainty so the delegates would experience these environments and reflect on how they felt. This required that the delegates' understanding and mastery of the subjects was developed rather than training or dictating methodologies to them. The workshops were designed around the elements of the Triple E model:

1. Explore, in teams the delegates discussed the why, what, who, how, when and where of the subject.
2. Experiment, the delegates undertook activities to test out their ideas in a sandbox environment.
3. Experience, delegates were given the opportunity to apply their learning in either a live or virtual project as well as in their roles thus gaining experience in new concepts. This allowed espoused theory to become theory in use (Argyris & Schön, 1996, p. 13).

Figure 1.8 on page 42 shows this graphically.

From my literature review I determined that applying the Solutions Focus (Jackson & McKergow, 2007) concept of imagining a better future needed to be applied to the learning and development element. This informed the approach used in the LPMDP by considering what competences future project managers

needed to deal with uncertain and complex environments and then how to achieve these competences. I was particularly keen to develop certain competences in the Council's project staff, such as;

1. Adaptability, project staff need to be flexible to meet the changes most projects are subject to. This required a mastery, an understanding of the purpose of the project and the activities required in commissioning and executing the projects.
2. Able to think systemically, project staff need to understand the bigger picture of their projects rather than focus on delivering an output to cost and time. They also need an ability to drill down into the detail as shown in Figure 2.16 on page 106. This requires the ability to analyse and synthesise data.
3. Able to improvise, this competence flows from adaptability and systemic thinking. The consequences of actions are considered holistically so that if a consequence occurs the project manager can adapt as needed.
4. Critical thinkers and evaluators, project staff need to be able to think about the activities needed and apply them appropriately and proportionately in the project context. As an example, the level of stakeholder engagement for a six-month project will, usually, be different to one which is scheduled to last 3 years.
5. Challenge, be prepared to ask why? A vital competence for employees not just project staff, why are we doing this activity should be constantly asked and leads to continuous business justification.
6. Continuous learners, project staff need to be continuous learners and aware of the learning opportunities in projects. This is a way of preventing project staff falling into the dogmatism trap (Reynolds & Holwell, 2010a, p. 6).
7. Reflective and reflexive practitioners, in every session time was allowed for the delegates to reflect on the activities, how they felt and what may be done differently. In the latter iterations, all delegates were invited to

produce a reflective report and 26, 50%, did so. These have been analysed for themes and this is discussed in the next chapter

All these competences are behavioural and the development programme was designed to help nurture these competences, having as its purpose; improving delegates' understanding of the activities needed to successfully execute projects with a stress placed on the delegates becoming *'learners not knowers'* (Hinken, 2005; Summers, 2007), and able to adapt to the changing circumstances of projects easily. Table 5.2 shows the actors engaged in this step.

Problem-solving cycle – design & planning	
Who engaged	**Action**
Strategic directors board	Reports on progress
Strategic directors board	Annual meetings to inform
Heads of service	Annual meetings to inform
Corporate project board	Reports on progress
Project and Programme Management Network of Practice (Local Government Innovation and Development, 2008 - 2015)	Discussions around findings in other organisations
Project management group	Discussions & workshops
Project delivery teams	Project retrospectives
Co-facilitator	Workshop and LPMDP design

Table 5.3 Engaged scholarship – problem-solving. (Author's work based on Van de Ven 2007)

5.4.2 Research interest cycle – design and planning.

In this phase, the research interest crystallised around the concept of developing reflective practitioners aligning with direction 5 as proposed by Winter et al., (2006). This proved to be a fascinating topic and I believe my results demonstrate an exciting contribution to knowledge showing how reflective practitioners be developed, as Winter et al., (2006, p.642) state reflective practitioners lead to *practitioners who can learn, operate and adapt*

effectively in complex project environments, through experience, intuition and the pragmatic application of theory in practice.

As stated in section 3.7 interviews were conducted with delegates of the LPMDP and an analysis of the reflective reports also carried out. I was attempting to discover if the experience of the programme had any impact on the delegates. This is self-appraised by the delegates and the statements made were verified with other staff such as the delegates' line managers and other colleagues. The first batch of interviews was within two months of competition; however later delegates were interviewed 12 months after completion allowing time for behaviour change to be recognized.

5.5 Action research step 4

This step involved the design of the actions to be taken across both cycles.

5.5.1 Combined problem-solving and research interest - define action steps.

The following steps were determined as being necessary to meet the dual problem solving and research requirements in the later cycles.

1. Design recruitment process for LPMDP, the first cohort had been selected due to the delegates disappointment with the lack of alignment with the Council's practice from the PRINCE2 training they received. A recruitment process was introduced with drop in sessions arranged to explain the programme to potential delegates.

2. Amend LPMDP considering feedback from the design and pilot iteration. A formal feedback session was arranged with the delegates and facilitated by an independent officer and some alterations were made, mainly reducing the learning labs from two to one.
3. Redesign of approval process. The original approval process had six stages and the categorisation of the project determined the approval level. As results were improving a review to consider the number of stages and approval levels was undertaken.
4. Attend Graduate school workshops. The University of Portsmouth introduced a Graduate school and I attended several workshops covering areas such as ethnography, insider research, narrative and discourse analysis, hermeneutics, case study research among others.
5. Attend teaching workshops. The University ran a programme for post-graduates who were or wanted to teach. This re-acquainted me with lesson design and introduced assessments and feedback.
6. Re-invigorate the community of practice as attendance was falling. The delegates from the LPMDP were invited with their mentors. Several guest speakers were arranged and the attendance improved.
7. Continue annual meetings with Strategic directors and Heads of service to discuss their project plans. This was also an opportunity to discuss their staffing requirements and succession planning with the senior managers thus providing continuity for the management of projects.
8. Continue meetings with project managers, advising as required. This helped projects start in a good manner with other services being informed early enough of staff requirements.

9. Arrange Managing Successful Programmes certification for some staff. Several of the experienced project practitioners attended a five-day workshop leading to being examined for the managing Successful Programmes certification. Two tranches of 12 were involved and of these 18 successfully passed the practitioner examination. This was also a way of introducing these delegates to benefits management and to start thinking of a broader conceptualisation.
10. Arrange APMP certification for delegates of the LPMDP, this enabled them to obtain a formal project management certification along with the workplace development. A total of 12 from 13 successfully passed this examination.

5.6 Action research step 5

In this action research step the actions are implemented and again are considered across both the dual cycles of problem-solving interest and research interest.

5.6.1 Combined problem-solving and research interest - implement the action steps

Section 5.5.1 gives detail of the steps needed and these were implemented with the purpose of improving project performance. The focus in this phase was on improving the LPMDP and applying active learning techniques to the programme. A recruitment process for the development programme was introduced with an initial day of drop-in sessions every hour. My co-facilitator and myself explained the thinking underpinning the programme and made it

crystal clear that the delegates would be doing the work, there was to be no PowerPoint presentations, no training and that they would be working collaboratively across many activities. Additionally, we required written confirmation from their line manager agreeing to their attendance. The potential delegates were left in no doubt as to nature of the programme and around 50% of the drop-in session attendees did not pursue their initial interest.

Through the design of the LPMDP I was endeavouring to create learning environments where active learning could take place. I believed it important to encourage the delegates to develop their critical thinking, evaluation ability and reflection. This successfully developed reflective practitioners as the next chapter demonstrates. Reflection was a regular element of all the learning activities and requires the facilitators learn to let go of control as the delegates were being encouraged to and supported in challenging theories, methodologies based upon these theories and even statements made by the facilitators. Appendix B details the design of the LPMDP showing the various elements which comprised the programme.

The research interest focussed on practitioner development with interviews conducted with several delegates and my two co-facilitators. In total 25 interviews were conducted and are analysed in the next chapter, evidencing the successful development of reflective practitioners.

5.7 Action research step 6

This section will reflect upon both the problem-solving actions and research interests during the later stages.

5.7.1 Reflect upon the impact of the problem-solving actions.

In Chapter 6 the business metrics, which were collated as part of the evaluation plan, are analysed and indicate the efficacy of the problem-solving activities. As will be seen from the business metrics removing the focus from meeting cost and time targets onto benefits realisation improved project performance in terms of these budgets. This is a counter intuitive result and suggests that the 'bigger hammer approach' is fundamentally flawed. This does require testing in other organisations and is an avenue for further research.

A key element in the problem-solving activity was an attempt to dissolve the issue rather than just apply sticking plaster or resolving (Ackoff, 1994). This required a rethinking of the purpose of projects onto value creation and changing the emphasis from training onto developing reflective and reflexive practitioners, directions 3 and 5 from the RPM network.

It is worth noting that as this thesis is being written project performance is still good within the Council some four years after my departure and five years after the final iteration of the LPMDP. This contrasts with contract management and performance management as will be examined in the next chapter. Given that my remit was to improve project performance success in achieving that aim can be claimed.

5.7.2 Reflect upon the intervention in terms of research interests

Over the course of this work several research interests were identified before the development of reflective practitioners was selected as the focus of this thesis. This could be viewed as lacking efficacy with time and effort being expended on avenues which were explored and not followed through. Arguably

the research was inefficient due to this expenditure of time and effort, however the research has been effective in rethinking the approach to projects and the education of project practitioners. Conversely this research was exploratory; therefore, it was expected that different options would be exposed and discarded. These discarded options may be followed up in future work and Chapter 7 discusses these further.

The RPM network felt that developing reflective practitioners would improve project performance and a key element of my model was the educational element which looked to develop reflective practitioners. The active learning approach was successful in developing reflective and reflexive practitioners as evidenced in the next chapter. The pragmatic approach is concerned with results rather than the process in achieving those results and the evidence presented in the next chapter clearly demonstrates very good results from the organisation's and the individual practitioners' perspectives.

I remember clearly the excitement I experienced following the initial batch of interviews. All the interviewees stated their confidence had been improved and it was clear that reflective practice was being developed by my approach in the LPMDP. At this stage, this was only a small sample as only seven had been interviewed nevertheless these results were exciting and provided some confirmation for the approach going forward.

5.8 Action research step 7

This action research step determines whether to amend the plan or exit if satisfactory results are obtained.

5.8.1 Problem-solving cycle - amend the plan if required or exit

The problem of poor performance had largely dissipated by the end of this phase and project results were satisfying stakeholders with good business results being obtained, within time and cost budgets. Exit was appropriate at this stage as the issue had been dissolved.

5.8.2 Research interest cycle - amend the plan if required or exit

Interviews with the delegates of the LPMDP had been conducted or arranged and the early analysis strongly suggested that the active learning approach was having a positive impact on the delegate's confidence and ability to reflect. This was an extremely exciting discovery and I presented these findings on many occasions as listed in the Dissemination section on page 20. The analysis demonstrated that the delegate's learning and behaviour change had sustained some 12 to 24 months following completion of the programme. Again, it was appropriate to exit at this stage with the research questions answered and future avenues of research opened which will be explored in Chapter 7.

5.9 Concluding remarks

This chapter has considered the learning cycles conducted during the second phase of the dual cycle of problem-solving and research interests showing how these dual cycles were tackled looking to dissolve the issue of poor project performance and consider the research interests from the problem-solving cycle. The next chapter will review the evidence collated with the final chapter reflecting on the research and possible avenues for future research.

Chapter 6 Data collection, analysis, interpretation and assessment

As shown in Figure 6.1 this chapter presents the data which I collected to provide evidence supporting my thesis.

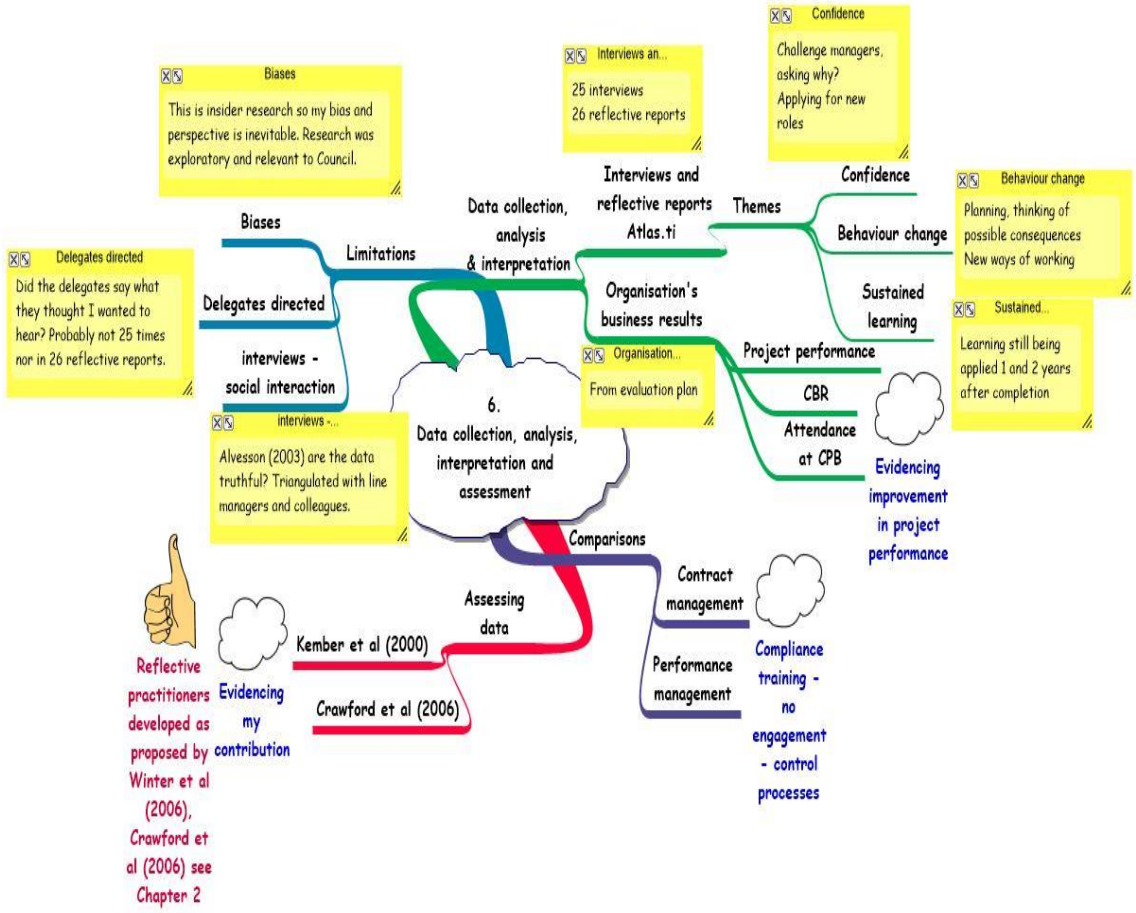


Figure 6.1 Outline of Chapter 6. (Author's work with Inspiration ®)

6.1 Overview

This chapter presents the data collected from three primary sources; interviews of several LPMDP delegates, reflective reports from many of the delegates and the business metrics which show the impact the intervention had on project

performance within Portsmouth City Council, which answer the research questions;

> *1. Would a development programme based on active learning develop reflective practitioners?*
> *2. What impact would such a development programme have on project performance?*

A total of 25 interviews were conducted which included my two co-facilitators, one of whom was also a delegate in the year prior to his assisting in the facilitation, this is 48% of the delegates who completed the programme. In addition, as part of the programme 26 delegates, 50% of those who completed the programme, submitted reflective reports which provided further data in support of the research questions.

The research is concerned with an intervention into an organisation to improve project performance so it was not possible to run side by side research projects with a control group nor was it feasible to compare with a different organisation. However, within the Council due to the Audit Commission's inquiry in 2003, following the construction of the Spinnaker Tower, in addition to project management both performance management and contract management were highlighted as areas which required improvement. Therefore, it is possible to compare the approaches in these areas with the approach I implemented.

The business metrics include percentage completion on time, percentage completion to cost budget, return on investment, engagement by political group leaders and improved reputation. As this research covered a five-year period there is a longitudinal element which shows continual improvement. Additionally, a maturity assessment was conducted before the commencement of the intervention and again three years later. This maturity assessment was

conducted using a recognised tool, with the first carried out as part of the KPMG review of project management, the second to assess progress with the intervention. It will be noted that these metrics cover sub-systems rather than a more holistic view. Systems Thinking is not just about taking a holistic view; there is a need to analyse the parts and then synthesise the whole. Accordingly, the boundary was altered to view the parts as in the analogy in Chapter 2 page 103.

6.2 Results and interpretation

The next sections will provide analysis and interpretation of the results. These sections show how the results support the contribution to knowledge and answer the research questions. Fuller results are available in Appendix D.

6.2.1 LPMDP Delegate demographics

A total of 61 delegates commenced the programme over the three iterations with 9 failing to complete for various reasons. The data displayed in Table D.2 presents the age group of the delegates showing that the number of staff over 45 were not representative of the Council; 8.2% compared with 47%. Those between 25 and 44 accounted for nearly 87% of the total delegates on the programme. This finding confirmed my earlier view that more senior staff were less likely to attend a development programme. The community of practice became the vehicle for reaching these more senior staff. Additionally, I met with project practitioners to advise on their projects at regular stages especially at the beginning. The regular meetings with Strategic directors and Heads of service also became means of reaching the senior people.

The qualification data in Table D.3 shows the LPMDP delegates were more highly qualified than the organisation. The Council had about 48% of staff

educated at foundation degree level or lower whereas the LPMDP delegates had only 14% educated at these levels. The biggest difference was in bachelor degree holders with the delegates at 50.8% compared with 25.7% in the organisation. This may reflect that some graduates are more likely to be continuous learners or it may be the recruitment policy of services in selecting staff to be involved in projects.

Finally, Table D.4 indicates the gender mix was comparable with the Council with females slightly more represented on the LPMDP. The did not complete (DNC) rate shows that nearly twice as many females, in percentage terms did not complete the programme. A decision was made not to follow up with exit interviews those who did not complete so the reasons were not explored nor why there was a slight gender imbalance.

6.2.2 LPMDP interviews

The interviews were semi-structured allowing the delegates an opportunity to express their experience of the programme. The interview questions were intended to surface specific learning from the programme and whether the interviewees behaviours had changed following the programme. The first tranche consisted of six delegates and one facilitator and the second tranche consisted of delegates from the third iteration and five from the second iteration having a follow-up interview around two years' post completion of the programme. Also, included in this tranche was the only person who had roles as both delegate and facilitator. The questions are shown in Appendix D along with a selection of responses from the subjects.

The analysis of the interviews suggested three main themes; confidence, behaviour change, and sustained learning all of which require reflection to achieve. All the interviewees indicated that confidence gain was the biggest

impact on them because of the programme, rather than for example how to plan. This reported confidence gain led to behaviour change which many of the interviewees reported. The behaviour changes and confidence to challenge assumptions both their own and others is a clear indicator of reflective and reflexive practice (Cunliffe, 2002, 2016; Dewey, 1933; Rodgers, 2002), and clearly demonstrates the LPMDP successfully developed reflective practitioners, which is a significant contribution to knowledge given the paucity of contributions evidenced in Chapter 2. Although reflection is rarely specifically mentioned by the delegates in the interviews analysis of the transcripts evidences an ability to reflect upon their learning as shown in the extracts presented in Table 6.1 below;

Theme	Comments
Confidence	'I definitely feel, and it's an absolute bonus for me, more confident, hence going for a promotion actually.' 'I think the biggest thing for me though is the confidence.' Interviewee 8 Cohort 2 'Changing face-to-face courses to e-learning courses and I'm challenging whether we're doing it simply because we can rather than for the benefit of the delegates.' Interviewee 7 Cohort 2 When I think of my competencies, say 5 years ago, I would say that's a change and I think it's come about with a greater confidence in the subject matter as well as a willingness to let it go into areas where I might not have the answers necessarily but because I've got a greater confidence in the subject generally it's not been scary.' Interviewee 3 Cohort 1 'So, that has helped a lot, and I've got to say one of the biggest things I took from the course was the confidence to be able to do …' 'And the course did definitely kind of urge me into and make it a lot more confident for me to let go of the reins and let the team do what the team should be doing rather than me trying to bull my way through it and keep hold of every string I possibly can.' Interviewee 4 Cohort 1

	‘The course has given me a good foundation on which to build. I now know the theory behind project management and this knowledge combined with the practical experience and knowledge I have gained in my current role has given me the confidence to undertake confidence tasks in a more clear and planned way. Interviewee 28 Cohort 3 The programme has helped me exceed my personal objectives. I am far more confident in my own abilities and knowing processes. I will prepare everything before I commence a project and draw up a plan of action to ensure every piece of work proceeds. I am far more aware of the strategic picture when being tasked with a piece of work.’ Interviewee 24 Cohort 3
Behaviour change	‘And I’ve actually gone into other training that I deliver with that kind of approach in attitude to cut down the amount of PowerPoints that I use.’ ‘Planning and understanding consequences of the actions is something which I have used in both my work and home life. Not sticking to something I may need to do something a bit different to get the goal I’m aiming for.’ ‘The benefits module helped enormously and it was not something that I and other delegates had particularly thought of before and now if I’m planning anything I consider what the benefit of it is.’ You could physically see some of the light bulb moments occurring. To actually see someone, develop and change their behaviour over a period of time is very satisfying. It is a good to see that people have moved on from doing the programmes and are now working on some corporate projects.’ Interviewee 7 Cohort 2 ‘Okay one of the reasons that I signed up to the programme as well as general personal development was that I am conscious that I can come across as a very abrupt person. I'm very driven, I'm very focused on where I want to get to and when I want to get there and I miss out on the soft elements. So that was something I was really looking to get from the course as well as doing other things to generate those behaviours more within myself at the same time so that I think that that’s something that in the last 6 to 9 months, I've come on leaps and bounds…’

	'…I do feel while I still have to make a conscious effort, those softer skills are a little more easy for me to come by.' 'That's probably the main behavioural change although it's a very big behavioural change I think.' Interviewee 1 Cohort 1 I think I have achieved new specific skills around planning, engaging, being assertive and problem solving. The programme has allowed me to reflect upon my areas of development and create a more systems thinking approach. Interviewee 26 Cohort 3 Exchanging ideas and knowledge with others has been most helpful as is the encouragement we were given to apply our knowledge and challenge appropriately. Interviewee 24 Cohort 3
Sustained learning	'I think I, since the end of the programme I think I've probably used ninety-five percent of what I learnt in that classroom, not having had any sort of formal or informal training on project management before. The big, one of the big things that the course did do for me is help me to appreciate the skills I had from other areas, and other employments that I would never have guessed would've been related to the skills of project management. It kind of highlighted those transparent skills and … maybe taken in a different context but not much different to how I've used those types of skills before and it was a real eye opener and when I first came into the course I was a bit daunted so to speak with not having any project management experience or training.' 'Things clicked later on when other bits of conversation were brought into kind of explain things and kind of led, it felt we were kind of led to our own conclusion about it rather than just like on most training courses you're told A equals 2, B equals 3 and so on. So, I definitely thought that the way that things were put across to kind of bring out our own thoughts and methods and the way that there was no necessarily wrong answer but the answers were up for discussion on all levels and on most of them there wasn't a right or wrong answer. I think another thing that I've learnt was that there isn't always one way to do something and that way's not always the right way but it's not always the wrong way, I think it depends on the project, the project team, the people in that team and

	the person that's managing it on the skills that they have and what kind of models and modes they have to put themselves into achieve something. So, I think that definitely, definitely helped.' Interviewee 14 Cohort 2 '…five events came to, happened and they all went through smoothly. In previous years, there'd always been a panic stage, there was no real panic, food festival, I think [line manager] noticed that the food festival it as nice and calm and relaxed, the weeks leading up to it everything was getting done as it needed to be, everything was in place and it created I think a more relaxed environment.' 'But then by front loading loads of it and getting those contacts and the communication channels in place so everyone knew what was expected, how we were going to, or how I was running the event and what I needed to be done at what stages, they went effectively seamlessly. I got to the stage where I was thinking well I must've missed something, it can't be doing this smoothly, what have I missed out, what have I omitted, and I hadn't it was just I was doing things in advance rather than just juggling them more in a haphazard way that I used to do things, it's probably a bit more structured now I think and just buys so much time.' Interviewee 5 Cohort 2

Table 6.1 Delegate comments grouped into the three dominant themes.

All the interviewees stated that their confidence had increased and many had challenged their managers. A significant number, 64% of those known for certain, gained new positions; some within the Council and others outside. Behaviour change was also reported by many delegates with front loading of planning being a common example. Challenging the status quo; particularly challenging the purpose of activities, i.e. the underlying assumptions, was also reported by many interviewees. This is a clear indicator of reflexive thinking (Cunliffe, 2002, 2016). 18 interviews were conducted between 12 and 24 months following completion of the programme and the interviewees reported they were still applying the learning after this interval thus demonstrating sustained learning. Figure 6.2 shows a comparison of word count from the

interviews. Tables 6.2 and 6.3 demonstrate how the findings meet Crawford et al., (2006) and Kember et al., (2000) specific challenges and measures of reflection.

Figure 6.2 A Wordle showing the number of times specific words were used in the interviews. (Author's work)

All the staff interviewed stated that their confidence had increased because of their attendance on the development programme. That so many made this statement strongly evidences the active learning approach had a beneficial impact on the attendees' confidence or at least their perception. This I felt was a very exciting corollary of the programme and unquestionably led to behaviour change. This improvement in confidence was triangulated by discussions with delegates line managers who confirmed the improvements.

6.2.3 LPMDP reflective reports

The delegates on the LPMDP second and third iterations were requested to complete reflective reports on their learning post the programme. A total of 26 reports were produced with the delegates having completed a baseline exercise at the beginning of the programme they were asked to reflect on any changes

attributable to the new learning from the programme. These reports, like the interviews suggest a gain in confidence and a change in behaviour. Benefit realisation and stakeholder engagement were the biggest learning outcomes reported in these reports and echoing the interviews increased confidence appears in four of the listings evidencing a strong change in the delegates shown in Table D9. The reports do vary in the depth of reflection although the act of taking their own time to complete them is an indicator of a move towards becoming reflective practitioners. Figure 6.3 shows the word count from the reflective reports and again quotes from the delegates are applied in Tables 6.1 and 6.2 below.

Figure 6.3 Wordle showing frequency of words used in reports. (Author's work)

6.2.4 Business metrics

The following sections detail the actual data collected and a discussion of this data. In addition, there were other improvements in effectiveness which resulted in cost savings however obtaining actual figures was not possible and estimates based on the P3O manual from the OGC were adapted. These were calculated as savings of the order of £2 million per annum. There was also a total of £4.2 million saved within the first six months of the introduction of the new model due to a project being stopped. The corroborated evidence from two of the LPMDP delegates, one resulting in saving £25,000 per annum and the other saving the

Council approximately £30,000 and damage to its reputation amongst partner Local Authorities. The project would also have diluted the money to be distributed to other Local Authorities from £1M to £300,000.

The member attendance at the corporate project board was very high and it was clear that the members had read the project documents ahead of the board meetings. This engagement enabled the approved projects to be aligned with the Council strategy and to continue to be aligned through the stage approval process. The Council thus became more efficacious in delivering its strategy. The approval process with its peer review produced more accurate business cases with the focus shifting onto value creation rather than product creation which helped projects meet budgets more frequently.

These business metrics do not directly answer the research question posed of developing reflective practitioners, however the literature reviewed in Chapter 2 strongly proposes that the development of reflective practitioners is key to improving project performance. Although the LPMDP commenced in 2009 the concept of developing reflective practitioners through active learning was introduced early in 2008 and possibly impacted project performance from 2011 onwards. However, there is insufficient evidence to claim this as a causal connection.

6.2.5 Crawford et al., (2006) challenges and specific implications compared with findings

In section 2.3.5 the challenges and specific implications identified by Crawford et al., (2006) were listed. The table which follows shows these items and compares the findings with each one.

Crawford et al., (2006) challenges	Findings meeting the challenges
1. Application of project management to a range of project types with characteristics that differ from those for which project management practices were first developed (government funded defence/aerospace and construction).	As a Unitary authority, the Council had responsibility for projects in traditional areas such as transport and IT. Additionally the Council was responsible for social services and education where less traditional projects were commissioned. Across all services change projects were commissioned and executed. The delegates of the LPMDP reflected this diversity of service and by using collaborative learning delegates greater understanding of projects with different characteristics than they were used to. The community of practice enhanced this diversity and combined with an emphasis on reflection in the workshops enabled practitioners to apply project management across all projects. Examples from findings: 'I feel that my networking skills have improved during this course, especially with colleagues across the organisation, as I had the opportunity to work with colleagues from services I haven't previously worked with, as well as colleagues from neighbouring authorities.' Writer 2 iteration 3 'In my new role as Event Officer, I am building confidence through application and practice, starting with smaller projects such as the beacon lighting and tea dance in Guildhall Square and working up to larger events such as the Great South Run. I am gaining confidence to take a project from idea to completion through all stages and meetings with stakeholders, such as in developing this year's 60+ festival and I have received enough positive feedback in the short time I have been with the team to feel confident that I will be recommended because of my successful input to the projects I have worked on.' Writer 4 iteration 2 This delegate applied project management to an annual Triathlete event which has now been running for three years. 'During the six months of the running of the LPM programme I was involved and an active project group member for the relocation of Children Social Care and Safeguarding from Merefield House to Civic Offices, the programme helped build my 'confidence' with the knowledge to compliment the tangible project that I was involved in, giving a greater understanding of the process running of a project and using some of the tools learnt 'Empowerment of knowledge'.' Writer 13 iteration 3 This delegate applied project management to a relocation project which required significant levels of customer involvement and communications. Two other delegates managed projects which involved the integration of the NHS and the Council, one in the combining of Public Health, the other in Adult Social care. These are examples of delegates applying project management to a range of project types with characteristics that differ from those for which project

	management practices were first developed (government funded defence/aerospace and construction).
2. Extension beyond ‘‘execution-focused’’ project management to a whole-of-life concept of projects – from initiation, through operation to cancellation.	Both the interview and reflective reports evidence a focus onto the realisation of benefits and an understanding from the delegates that the purpose of projects is to achieve benefits. Thus, the focus is moved from outputs onto an extended or whole-of-life concept. No delegate explicitly stated this however, it is implicit in the understanding of benefit realisation. Examples include: ‘…the south coast street lighting project with three authorities and well over £1 billion and even at the time I knew that the benefits analysis on that was poor but now I know just how poor it was and while that's a project where it would have been proportionate to spend a lot more time on that analysis so that you can measure whether you been successful in achieving your benefits or not.’ Interviewee 1 iteration 2 ‘‘The benefits module helped enormously and it was not something that I and other delegates had particularly thought of before and now if I’m planning anything I consider what the benefit of it is.’ Interviewee 7 iteration 3 ‘Benefits Realisation Management was a real realisation to me and a slap in the face as well. For so long we have done projects without thinking…what is the benefit of doing it? I can honestly say that it has changed my outlook, not just at work but in life generally.’ Writer 13 iteration 3 The concept of whole-of-life of projects was stressed throughout the education work in the Council and Figures 2.2 and 2.5 shows this graphically.
3. Change of focus from product creation to value creation, from well-defined outputs to less tangible outcomes or benefits. Extension of the breadth of project management to include program and portfolio management in a broader conceptualisation of management of projects as a strategic corporate capability.	This follows on directly from the foregoing and throughout the delegate findings there is ample evidence of an understanding of benefit realisation which as stated in section 2.1.3 is closely linked to value creation. Examples from the findings include; ‘Identify, quantify and measure the deliverable benefits in a project; I am developing a benefits realisation plan for the E-HR project, though it is sometimes difficult to get others to see the value of this important activity.’ Writer 16 iteration 3 ‘I’ve learnt a great deal about Project Management as a result of being on the course with the most important lessons relating to benefits management which has been really interesting and given the model of project management greater meaning. It has taught me that without building in this aspect of project management the process can be flawed as there is a risk that a project is deemed to be successful only by a narrow set of measures such as time and cost. Building in benefits management also leads to strengthening partnerships between stakeholders and creates a collective sense of

	responsibility about identifying and realising the benefits of a project. If an organisation has a culture of using benefits management effectively this could than give it more credibility and integrity as it is demonstrating it is delivering the benefits, it's responsible for. I've also learnt that benefits management is a really important way of recognising and celebrating the potential successes of a project. If organisations don't recognise successes, there can be a tendency to focus on projects that have failed to deliver the desired outcomes and this can lead to a negative culture of risk aversion and low ambition.' Writer 6 iteration 3 This delegate applied the concept of benefits management very successfully in his service to manage contracts. The LPMDP did not specifically cover programme and portfolio management however the workshop 'Delivering projects the PCC way' covered the role of the corporate project board and the alignment of projects with the Council's strategy. In addition, 18 candidates successfully gained the MSP practitioner certification during this period.
4. Increasing actual and perceived complexity – for many reasons including changing societal values; increased stakeholder involvement and influence; more complex governance, ownership and delivery structures; and advances in communication technology that enable global and virtual working, and accelerate time pressures.	Complexity as a concept was introduced onto the LPMDP and some delegates mentioned this concept in the findings, some examples are; 'I think the other thing was complexity, complexity as a project sort of talked about a few times and you know being a, I think being adaptable as well and not having a fixed view of projects going this, this and this because human beings don't care about this, this and this, that's kind of what makes a project.' Interviewee 11 iteration 2 'Other areas highlighted from the course that I wasn't aware of the importance were the critical success factors such as the complexity and inconsistency of individuals and managing these tactfully, appropriately and diplomatically.' Writer 9 iteration 2 'The model relating to chaos/complex/complicated/simple was of great value to me, as it serves to remind me that it's actually quite usual to feel confused and perhaps a little overwhelmed at the start of a project!' Writer 3 iteration 2 These examples highlight the delegates understanding of this challenge and how individuals are significant contributors to complex situations.
5. Integration with rather than isolation of projects from the business.	This challenge was mainly met through the corporate project board and the definition of projects with the purpose of realising benefits. Throughout the education element stress was placed on business projects rather than construction or other specific disciplines. I always spoke of projects rather than discipline specific and with the emphasis on benefits integration with the business was achieved. This also closely links to item 3 above.

6. Aging of the workforce and the need for succession planning.	This is not a reflective practitioner challenge although it is important to have a pipeline of suitable staff to ensure the Council has the capacity and competence to fulfil the aspirations of the elected members. The educational element was cognizant of this requirement in the design and recruitment onto the LPMDP. The importance of continuity planning was stressed to project managers and succession planning to the senior managers in my annual meetings.

Table 6.2 Assessment of Crawford et al., (2006, pp. 724 – 725) challenges and implications.

It is important to note that these are challenges rather than a means of assessing the success in developing reflective practitioners. Table 6.2 shows how the delegates have embraced and are meeting some of these challenges through their ability to think reflectively. The next section considers an assessment instrument and how the findings compare with a subset of the questions from this instrument.

6.2.6 Comparison with Kember et al. (2000) questionnaire

The questionnaire proposed and tested by Kember et al. (2000), was introduced in section 5.3.2 and the questions for Reflection and Critical Reflection, which are most relevant for this thesis. These questions are shown in Table 6.3 with statements from the interviews and reflective reports showing how the delegates met those questions. The first four questions are grouped as Reflection and the second four as Critical Reflection in Kember et al. (2000) questionnaire.

Questions from Kember et al. (2000)	Delegate statements
I sometimes question the way others do something and try to think of a better way	'One of the biggest changes I have noticed is my readiness to challenge even my "superiors"; people who are normally telling me what to do need to be advised and cajoled into making a decision or taking an action. This can be daunting and the ability to persuade by demonstrating why I need something is a valuable tool.' Interviewee 12 iteration 3

	‘Probably just reiterating to me the actual impact of things is constantly challenging and asking why, why we’re doing this and obviously stopping and making sure that we’re still on track, not deviated. Actually, that point of asking why, a couple of things we’re not doing this year because we were going to do them as part of our normal what we always do, I said why, it doesn’t deliver any purpose, you know we can use the money elsewhere and [line manager] sat back and thought about it and said yeah, you know let’s not do it.’ Interviewee 5 iteration 3 ‘Changing face-to-face courses to e-learning courses and I’m challenging whether we’re doing it simply because we can rather than for the benefit of the delegates.’ Interviewee 7 Cohort 2
I like to think over what I have been doing and consider alternative ways of doing it.	‘Changing face-to-face courses to e-learning courses and I’m challenging whether we’re doing it simply because we can rather than for the benefit of the delegates.’ Interviewee 7 iteration 3 ‘I think it's a greater willingness to let go and feel that I don't have to be in control all the time, so I think this has been a willingness to I think I've been on a journey anyway, but I think that this has given me an opportunity to manifest with that change is a willingness to not, not to be not to have things under such control I would say.’ Interviewee 4 iteration 2
I often reflect on my actions to see whether I could have improved on what I did.	‘Reflection is a useful tool, and one that I will use in the future to understand why things (not limited to projects) go wrong as well as why they go right, both in the workplace, and in my personal life.’ Writer 3 iteration 2 ‘Benefits. This was a completely new area for me, which once we got started made complete sense, and I wondered why we didn’t do it more often across the authority. The use of the assignments to cement my understanding was really helpful, particularly as I applied my learning to a personal project. I think some of the tools were a key learning point for me, and will be used in the future, but the one thought that I will try to apply to all future projects is – we undertake projects to deliver benefits. If a project has no benefits to any key stakeholder group, then we should question why we are doing it. It is easy to get caught up in the statutory element of our work, without really considering what it is we are trying to deliver at the end.’ Writer 2 iteration 2
I often re-appraise my experience so I can learn from it and improve for my next performance.	‘The perceptual position they call it. So, I do that, I put myself in the other person’s position and try and imagine how they would see me in that interaction, it is only an act of imagination though but I think the very act of doing it can yield, can increase empathy and all those kinds of things but yeah, I do. I do ask myself if something went wrong what did I contribute, could I have done something differently, could other people have reasonably done the same thing in the same situation. I do ask myself those kind of questions.‘ Interviewee 3 iteration 2 ‘Okay one of the reasons that I signed up to the programme as well as general personal development was that I am conscious that I can come across as a very abrupt person I'm very driven I'm very focused and when I want to get there and I miss out on all the soft elements. So, that was something I was really looking to get from the course as well as doing other things to generate those behaviours more within myself at the same time so that I

	think that that's something that in the last 6 to 9 months I've come on leaps and bounds.' Interviewee 1 iteration 2
As a result of this course I have changed the way I look at myself.	'I definitely feel, and it's an absolute bonus for me, more confident, hence going for a promotion actually.' 'I think the biggest thing for me though is the confidence.' Interviewee 8 iteration 3 'On reflection, I feel I have developed both professionally and personally. I am working with learning and development putting together a soft skills training course for chairs of governors to equip them with the skills to support and challenge schools across the city, thereby improving the life chances of our young people.' Writer 2 iteration 3
This course has challenged some of my firmly held ideas.	'The main difference between the two descriptions is the first focuses on the practical aspects of planning a project but does not question whether it should be done in the first place i.e. what the benefits are. It identifies a problem and sets about resolving it in a matter of fact way, whereas the second, albeit brief description, focuses on identifying the issues, the need for change and the benefits it will deliver, before setting out to define who the appropriate and key stakeholders are.' Writer 16 iteration 3 'However, many other benefits have arisen from participation that I did not consider in the original learning contract. These are more intangible qualities around stakeholder engagement and personable skills. I feel my emotional intelligence has improved, along with my listening skills as the course brought to light some weakness here I had not previously recognised. I feel these skills are more valuable than the time and process skills I was seeking, and self-reflection in general will improve both of these areas if I look to improve them on my own.' Writer 21 iteration 3
As a result of this course I have changed my normal way of doing things	'I enjoyed those over a particular period of time and there was enough time in between the sessions to reflect on what we've learned and maybe investigate a bit further I think the essays were a good way of kind of embedding some of the learning.' Writer 3 iteration 3 '[the programme] …shown me that with project management, learning never stops. Just like planning, you start off with a plan, but it evolves all the time and sometimes never looks the same when you finish as when you started.' Writer 6 iteration 3
During this course I discovered faults in what I had previously believed to be right.	'But now we confidently say that if we were asked "why did you do the assessments?" Well we'll be able to say now wouldn't we its multifaceted isn't it it's all part of the tool it's a learning exercise and I think they understand that. I mean the exercise today is a learning exercise it's not just in terms of what they put on those post-it notes and what we get out of it it's just them having that experience. It will be a new one for some of them.' Interviewee 3 iteration 2 'A further point I learned was the importance of not forming opinions about others too quickly. Having participated in the first session, my initial thought on one of the delegates was that this individual would be difficult to get on with and I was not looking forward to undertaking future group tasks with that person. As time progressed however, I realised that my first impression was

	unfounded as we were able to work well together and developed a mutual respect for each other's ideas.' Writer 4 iteration 2

Table 6.3 Delegates' statements aligning with Kember et al., (2000) reflective assessment questionnaire.

Table 6.3 clearly evidences how the LPMDP delegates developed as reflective practitioners following their attendance on the programme. The questions are similar in nature and ideally the instrument should be used before any course or programme to baseline where delegates feel they are. In practice, the critical reflection questions would only be asked at the end of the programme, however the other 12 are applicable for baseline purposes. The full questionnaire is in Appendix E.

The findings from the delegates clearly demonstrates that a programme using active learning components will develop reflective practitioners and that their practice will improve as consequence of this development. This is an important and significant contribution to knowledge concerning the development of project practitioners.

6.3 Comparison with contract management and performance management approaches

The nature of the intervention being described in this thesis meant that a control group was not a viable option and the approach had to be applied across the whole of the Council. However as stated earlier the Council's performance in both contract management and performance management were also criticised by the Audit Commission and as with project management became subject to annual audits. Both contract management and performance management undertook top-down enforcement approaches in a bid to improve performance however neither succeeded although the annual reviews ceased with the

demise of the Audit Commission following the 2010 general election. Therefore, it is possible to review the approach taken in these areas and compare with the results obtained by utilising my model. The following sections give detail of the approaches taken by contract management and performance management.

6.3.1 Contract management

There were some similarities in the model followed by the procurement service who are responsible for contract management and the model which I implemented. There was a gateway process and a series of workshops which led to some staff being qualified as Licensed Procurement Practitioners. The gateway process had five stages and was concerned with the procurement of contracts, peers were used to interview the contracting manager offering advice and ensuring compliance with the corporate procurement processes. They did not set up a community of practice nor was there any discussion with the contracting managers to gain their input and ownership such as I did with the community of practice and regular meetings with senior managers. This gateway process was considered by many to be prescriptive and inflexible.

A training programme was also instituted using an outside trainer and a total of 10 one-day workshops covering various aspects of the procurement process. The workshops were delivered as training with the trainer working through a series of PowerPoint slides, the antithesis of the approach taken in the LPMDP. There was no attempt to set up a Community of practice such as the project managers group nor was there any follow-up following attendance on the workshops. By 2012 the Licensed Procurement Practitioners and the training were no longer active and contract management was still an issue for the Council. Interestingly one of the delegates on the LPMDP applied benefits management to contracting in his service area with considerable success

producing a far more effective way of contracting and delivering the service that was required.

6.3.2 Performance management

Performance management continued to be an issue for the Council despite the attempts of the Service responsible to make any inroads. Until the general election of 2010 National Indicators and Key Performance Indicators were collected and reported on as part of the Labour government's drive to improve performance across local authorities. The incoming coalition government scrapped the reporting of such indicators and local authorities were empowered to determine their own performance measures. In the Council there were two main initiatives introduced after 2010. Firstly, a questionnaire was sent to all Heads of Service requesting that they complete this pro forma. This request was largely ignored not least because it was considered that it would take a considerable amount of time to complete. The next initiative involved the services providing data in key areas and reporting to the Strategic Directors Board on a half-yearly basis. This faltered with the first Head of service roundly condemning the concept and the requirement to report to what was perceived as the headmaster and his senior staff. The Strategic directors, who had approved this initiative, failed to insist that the Heads of service provide the data requested and the member of staff responsible for performance simply shrugged their shoulders and blamed senior management for their lack of enforcement. This is a reaction by someone stuck in the 'knower stance' – blame someone else.

That performance management was still an issue is evidenced in a report produced in January 2013 concerning the Human Resource Service as follows;

> ***'Performance Management*** *– There was no obvious evidence of a service-wide performance management framework, and no standard*

> *performance metrics that would enable the service to monitor and manage its performance against its objectives. In recruitment, there are a range of detailed measures that are used to understand demand and drive improvement, but this was an isolated example and is of operational rather than strategic relevance.'* (Adams & Mitchell, 2013, p. 10)

In attempting to improve performance management at no stage were any of the concepts used in project management attempted. There were several people within each of the services who had some involvement in managing performance so a community of practice was a feasible possibility, there was no discussion with the Heads of service to garner either their input or support. Neither were there any workshops provided to educate staff as to the requirements and the necessity for performance management.

It is clear from these comparisons that both contract management and performance management failed to engage with the stakeholders nor provide an educational approach that worked to sustain the learning of those who had attended workshops. Both approaches relied upon a top down prescriptive approach and neither was successful in achieving their outcome of improving performance in their areas unlike project management which improved significantly over the time of the intervention. The main differences between the approaches were that in the project model;

1. Systems Thinking was employed enabling a bottom up as well as top down approach
2. Stakeholders were engaged across the Council
3. Active learning was utilised in the education activities
4. A community of practice was established

In addition, the project model challenged the existing paradigm regarding project definition and a training approach which trains people in retrospective rather than prospective actions. As discussed throughout this thesis projects were defined with the purpose of producing business results and active learning activities applied based on the Triple E model shown in Figure 1.8. These elements helped practitioners change their views of project success, and their focus onto value creation.

6.4 Limitations

The data produced was collated from interviews and reflective reports, with the reports requiring delegates to compare progress against a baseline exercise, the benefits to them of the programme and what they had learned. Thus, these reports were directed and delegates knew that these would be assessed, which may lead to answers being what the delegates thought the facilitators wanted. Section 6.2.6 assesses both reports and interviews against eight questions (Kember et al., 2000) and clearly delegates have demonstrated an improved ability to be reflective. Alvesson (2003, pp. 169 - 170) suggests that interviews are more a social interaction and may not provide truthful answers. The delegates' comments were triangulated with their line managers and colleagues who confirmed the statements. This research is exploratory and all interviewees and most report writers claimed increase in confidence and changes in behaviour. This was corroborated by discussions with the delegates' colleagues and observations.

The research is influenced by a practice perspective and further research into applying active learning is worth pursuing. The research is relevant to the Council and other organisations may gain an appreciation by using the Triple E model and then designing an approach relevant to their organisation.

Rorty (1982) believed that the test of validity of research was that an understanding would change behaviours; the data collected from the LPMDP delegates shows they changed their behaviours. They became more likely to challenge and gained in confidence in all areas. They believed they became more effective; a belief confirmed by their managers. Additionally, my main co-facilitator on the workshops has changed his behaviours and uses active learning in all his development activities.

6.5 Concluding remarks

The data presented in this chapter and Appendix D demonstrates that an active learning approach which gives the delegates activities which are then reflected upon rather than training practitioners to a body of knowledge or methodology will be successful in developing reflective practitioners as Winter et al. (2006) propose. There is also corroborative evidence to suggest that their practice will also improve consequently, due to the development of their ability to *'learn, operate and adapt effectively'* (Winter et al (2006, p. 642)

The data from the LPMDP delegates clearly evidences the active learning approach is effective in improving the confidence of the delegates in delivering projects and their overall work. They also reported improved ability to adapt and challenge, challenging why projects were being commissioned and other work continued. These findings, the interviews and the reflective reports, show that this approach significantly improved the delegates confidence improving their effectiveness in the workplace. This improvement was confirmed by the delegates line managers. The responses from the interviews and reports also strongly indicate an ability to reflect, which some delegates specifically stated. With others, the behaviours described are indicative of reflection and reflexion. Examples being the challenges made by two delegates to their managers which resulted in significant savings for the Council. Other delegates described how

they think prospectively considering the impact and reactions of their actions. These responses accord with Cunliffe (2016); Kember et al. (2000); Rodgers (2002) concepts of how reflective practitioners act. The findings have also been compared with Crawford et al. (2006) challenges and specific implications for practitioner development and this demonstrated that active learning will meet these challenges.

The next and concluding chapter will discuss these findings and draw conclusions including further research opportunities.

Chapter 7 Discussion, conclusions and implications

This chapter, the final one, demonstrates how my work makes an important and significant contribution to the development of reflective project practitioners in workplace settings. Figure 7.1 shows this contribution and proposes several avenues for further research as a result of my work.

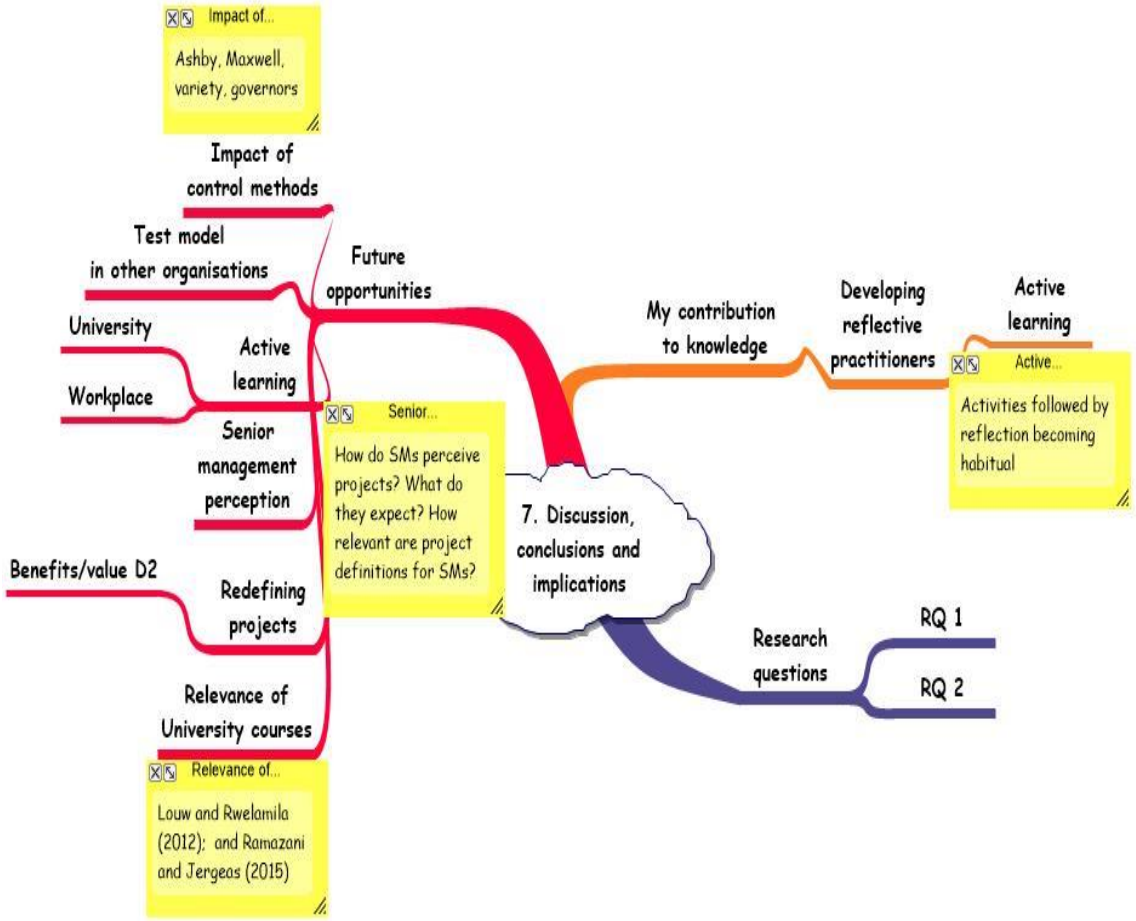


Figure 7.1 Outline of Chapter 7. (Author's work with Inspiration ®)

7.1 Overview

The first section in this concluding chapter will demonstrate how my research makes an original contribution to knowledge in the development of reflective practitioners leading to improved competence in project management practice. The next sections will address the research questions and proposals for future research suggested by my research and finally summarise the impact of these findings on project commissioning and execution in the future.

7.2 Contribution to knowledge

The contribution to knowledge demonstrated in this thesis relates to direction 5 shown in the RPM network's work, practitioner development and education. The literature review demonstrated a clear gap in knowledge, as Svejvig and Andersen (2015) found only seven published contributions discussing this area. My review of the literature discovered 15 contributions on educating project managers, mainly practitioner development through University courses; with little mention of application in the workplace. In this thesis, I have addressed this gap in published research, by changing the focus away from practitioners as trained technicians and towards development of reflective practitioners (Crawford et al, 2006; Winter, et al, 2006). Critical to this change was to pursue a move away from technical training against an established body of knowledge or methodology (Crawford, et al, 2006, p.724) and towards an approach based in active learning and engagement. This thesis has demonstrated how such an approach supports participants to develop as reflective, adaptive practitioners who are able and willing to learn on a continuing basis as their careers progress.

7.2.1 Active learning

At the outset of the intervention detailed in this thesis, I attempted to gain an appreciation of the background to practitioner development in the Council. In common with many other institutions in the UK, there was an emphasis placed on training. The two earlier initiatives had provided PRINCE2 training for some staff, and invitations to an in-house workshop entitled 'An Introduction to Project Management'. While PRINCE2 provides practitioners with a useful toolset, it cannot provide education in the nature and purpose of projects or their importance within an organisational setting. Neither of these prior offerings appeared to consider that projects are undertaken with the purpose to deliver benefits to stakeholders, nor that a focus on series of processes fails to address the emergent properties of project delivery. Having established the background, I discussed with the Project management group the subjects that needed to be covered in a programme of education for practitioner development. Together, we established a programme that led to design of the LPMDP. The results from my interviews with delegates and facilitators in the programme have been set out in Chapter 6. Both facilitators expressed themselves to be challenged by the new approach, having previous embraced a training paradigm; consequently, they changed their perspectives on delivering workplace educational programmes. One of these facilitators, to my certain knowledge, is still using the active learning methods developed in the LPMDP, and is continuing to obtain similar results in improved confidence and effectiveness. This is indicative of a sustained change in behaviour and perspective – particularly as he stated in his interview that *'…it was difficult to let go control.'*

This original contribution is demonstrated by the data collected and analysed above, which shows that the active learning-based LPMDP produced practitioners who had gained the confidence to challenge assumptions (their own and those of others) by becoming reflective and reflexive practitioners.

These findings were assessed against the challenges and implications set out by Crawford, et al (2006), as well as the questionnaire provided by Kember, et al (2000) examining reflectiveness in students. Thus, this thesis sets out a model for developing reflective and reflexive project management professionals. However, it is important to emphasise that the early stages in the model are concerned with appreciation (Vickers, 1963, 1968a) and exploration of context, to develop perspectives and purposes to be served. This process will develop unique insights relating to education and development of practitioners, within the culture and imperatives of their own organization. The model should not, for this reason, be regarded as a blueprint to be followed in other institutional settings, but rather as a guide to thinking, exploring and building appropriate learning experiences within a given context. I argue that any model is a starting point and needs to be adjusted to the circumstances the researcher encounters and any model or methodology will be amended by the value and belief system of the implementer and influenced by the other stakeholders.

The delegates also stated that they had continued to learn after the LPMDP, continued to be curious and ask why. This could be common to other learning and development programmes being run within the Council, e.g. The Leadership and Management Programme however no data is available to confirm or deny this. This is an area for further research however similar results have been obtained with a different group within the Council by one of my co-facilitators.

7.3 Research questions

In Chapter 1 I posed two questions which this research was designed to answer and the following sections looks at each question.

7.3.1 Would a development programme based on active learning develop reflective practitioners?

The findings and analysis provided in Chapter 6 and Appendix D evidence that a development programme designed using active learning will develop reflective practitioners. The findings from the delegate interviews and reflective reports have been assessed against Kember et al., (2000) instrument and clearly evidence that the delegates of the LPMDP developed as reflective practitioners. Further corroboration comes from Driscoll (2016) in the same organisation, and furthermore the findings in this thesis are consistent with the work of Hodges (2011) and Gewurtz et al., (2016).

The data from the interviews, the post programme reflective reports and the confirmations from line managers strongly indicates that the delegates challenged assumptions, successfully applied for new roles both inside and outside the Council, and became more effective in their work roles. From the interviews, the delegates claimed to be better planners, being able to think ahead the possible consequences of their actions. This enabled them to be more adaptable in dealing with ambiguity. The LPMDP selection process meant there was an element of self-selection. This may suggest the delegates were already committed to self-directed learning and pre-disposed to challenge in their work roles. The interview data does however indicate that these skills were developed during the programme and built upon in the aftermath of the programme. Five of the delegates were interviewed a second time two years after they completed the LPMDP and the results confirm the skills gained had been honed and were continually being used. A total of 13 delegates were interviewed 12 months after completing the programme and both they and their line managers confirmed the learning identified from the LPMDP was still being applied in their work roles. This shows that the active learning approach assists

sustainability of the learning beyond the immediate experience. This is an important finding from this research although clearly needs to be tested in other organisations and with University students.

7.3.2 What impact would such a development programme have on the delegates of such a programme?

Active learning was introduced to all workshops that were delivered under the umbrella of projects so that the previous emphasis on trainers using PowerPoint slides basing activities on specific tools and how to use them was moved on to an approach of explore, experiment and experience, the Triple E model. The findings in Appendix D and discussed in Chapter 6 clearly demonstrate that the delegates improved their performance, their ability to think reflectively and apply their learning into practice because of this approach. Several delegates specifically stated that they found the approach refreshing, that their behaviours changed and the learning was sustained after completion of the programme.

The Council's reputation improved and up to January 2018, when this is being written, there have been no negative articles nor letters in the local media concerning the Council's project performance. The findings detailed in Appendix D clearly demonstrate the impact on the Council with the examples of the savings achieved from the application of the delegates learning. The sustained reputational impact demonstrates that the shift in emphasis away from control processes onto education has had a positive outcome for the Council and as has been described the education took many forms across the whole of the Council. The findings from the delegates themselves evidences a positive impact in their workplaces.

In 2015 my main co-facilitator undertook a programme based on active learning within the adult social care service. The evaluation report shows that there were

14 delegates of whom 9 provided feedback, a 64% return. The findings from the responses received indicate that the delegates felt that their confidence had improved and behaviours had changed positively which had improved their work performance (Driscoll, 2016). It is significant that delegates from the LPMDP and this cohort are reporting their experience in similar terms, clearly showing that active learning is significant in improving performance and continuous learning. It is also worthy of comment that this author worked with me on the learning and development activities from early in 2008 until the last iteration of the LPMDP in 2012. It is clear from the interview with him and my observations that he has learned from the experience and significantly changed the way he delivers learning and development. He has moved from being mainly a trainer delivering in a transmissive manner to a transformative facilitator who utilises active learning to create learning for his delegates and is applying the Triple E model in his work.

7.4 Limitations

With any research and application of a specific model there will be limitations or warnings about the use with other appreciative settings. These fall into two types; generic and specific. The next two sections identify the limitations in this study.

7.4.1 Generic limitations

A factor which needs to be considered is my own bias in the approach to be taken to dissolve the issue of poor project performance. I presented a proposal to senior managers early in the dual cycle approach, having a clear idea of the means to improve project performance and although the model evolved with the emergence of experience and new thinking the approach shaped this study. In

the early cycles I was drawing on the established and traditional narratives of projects and these influenced the portfolio element of the model. Latterly my experiences informed the practitioner development element and my belief in the importance of a community of practice.

The model introduced into the Council, comprising the portfolio, education and community of practice, was designed by applying the Triple E model. Both are models and as Box & Draper, (1987, p. 424), point out *'Essentially, all models are wrong, but some are useful'* including the Triple E model and the model introduced into the Council. The Triple E model is a thinking, acting and reflecting model which may provide means of ultimately dissolving issues such as the poor project performance described in this thesis. It is a model which requires thinking and thinking about the results of the actions taken and the experiences of the actor. This requires reflection on the part of the actor and requires that the initial thinking must be done within the particular, unique context within which the Triple E model will be used. It cannot be applied unthinkingly as a template but must be adapted for use.

The Triple E model was applied across the whole of this dual cycle work however despite the multiple activities this is still within the purlieu of a single UK unitary authority. Therefore, as discussed in Section 7.5.1 below the model requires testing in other organisations; both private and public, so that comparisons with my results can be made and to refine the integrity of the Triple E model.

7.4.2 Specific limitations

The Triple E model can be applied in other organisations and will enable them to conduct an appreciative inquiry into issues faced. This is important as the

appreciative settings will be different in each organisation even at a more granular level such as divisions. It is not an ‘out of the box’ solution to be applied unthinkingly neither is the project model introduced into the Council. Any organisation will need to gain an appreciation of their problem before designing a model to attempt dissolution. Neither model will provide, nor are intended to, short term solutions, rather a way to gain an appreciation of the problem domain and possible dissolutions. The Triple E model is not algorithmic, it is heuristic designed to enable people to learn, understand and structure problems. It can be used to design a systemic approach to dissolving issues in organisations. Any approach will be customised and adapted for use in the organisation, accounting for maturity and culture and other factors which the Triple E will surface.

All the delegates in the second and third iterations were fully aware of the approach of the LPMDP so there maybe an element of self-selection with those delegates who were comfortable with the approach opting into the programme. Many potential delegates attended the drop-in days and did not pursue their interest. Some may have not applied for the programme due to discomfort with the active learning approach, however no investigation was conducted to determine the reason for not taking their interest further.

A further limitation is the homogeneity of the delegates in that they are employed by the Council and that the research has been conducted in one organisation, although the delegates did come from services across the Council. This meant that delegates came from technical environments such as traffic engineers as well as social care. The data demonstrates the approach was successful, however all I can accurately state is that in this time period, in this organisation and with these actors the approach described in my thesis improved project performance. There is, however, no current indication whether the approach would be useful for other organisations, e.g. commercial ones.

The systemic approach can be applied in other organisations; development programmes based on active learning can be implemented. This is clearly an avenue for further research and Section 7.5.1. below proposes applying the approach into other organisations which will expand the relevance of the research and the Triple E model.

7.5 Future research potential

This thesis and the research therein has opened several avenues of potential research and these are as follows.

7.5.1 Test model in other organisations

The main research opportunity which arises from the research is to test the model in other organisations to determine the results from applying a project definition based on realising benefits and development using active learning. The model is designed to be adapted to different organisations by gaining an appreciation of the requirements from the organisation. The model is capable of adaptation rather than a prescriptive model of apply these steps and projects will be delivered successfully. This means the model is not a simple turnkey solution and that an appreciation of the problem and stakeholder perspectives are required before introducing any changes.

This fact needs strong emphasis, there should be a full understanding of the problem and the environment before any attempt at dissolution is made. This also needs to be a holistic view, any attempt to deal with only part of the problem will lead to sub optimisation of the whole system as discussed previously. In the Council, there was a tendency to deal with the first problem perceived without garnering a full appreciation. Additionally, and maybe

consequently, the first solution was pursued which led to poor results. The model I designed was based on gaining an appreciation of the problem before consideration of an approach to dissolve the problem. This is a fundamental principle of my model; an appreciation is required before any attempt at dealing with the problem. This applied also to the early investigation of the problem long before the project itself was scoped. Not every organisation will need to introduce an approval process, or portfolio management as this may already be in place. Nonetheless peer review and strategic overview as well as an active learning approach to developing project staff are core elements.

A further key element to the model is the definition of projects with the purpose of delivering benefits, any organisation using the model will need to redefine projects and cascade this change throughout. This redefinition of projects I believe to be crucial to improving project performance with success measured in terms of benefits to the organisation.

It is possible for testing to be conducted on some of an organisations' projects with a control group of projects being executed under existing definitions. Whilst this is not scientific due to the many variables involved there will be indicative evidence to further support the hypothesis that a focus on achieving benefits has a positive impact on project performance.

7.5.2 Senior manager perception

The model moved the emphasis from product creation onto value creation. My review into the literature on project failure seemed to be focussed on the project manager's viewpoint rather than that of the business therefore research into the perspective from senior managers will assist in ensuring that projects are meeting the requirements of the business.

It will be valuable to understand the senior manager view of why projects are commissioned, what factors influence failure and whether they consider projects as strategic, operational, both or neither. This has especial relevance given the oft quoted reason for project failure being lack of senior manager support or interest. Another aspect of this potential research will be concerned with senior managers' view of the reasons for failure. This research may reveal the extent to which current project definitions are embedded in the consciousness of senior managers and the belief that projects are about producing outputs.

7.5.3 Active learning approach to project education

The main guiding principle in the educational approach in my model was that of active learning rather than the more usual passive approach of training and lecturing. Delegates were involved in discussions to elicit ways and means of conducting the activities required for project success. The delegates were introduced to activities to explore and experiment with their learning.

Future research may be applied to workplace development and university teaching to ascertain if active learning achieves the same results of improved confidence and sustained learning that the LPMDP did as described in chapter 6. The application of active learning approaches does not require a full development programme as these approaches can be applied to workshops and other forms of learning. The emphasis, however needs to be on understanding and continual development, rather than blindly following a prescribed method that may have worked well in a different project within a different environment, for as Merton (1940, p. 562) states

> *'…actions based upon training and skills which have been successfully applied in the past may result in inappropriate responses under changed conditions'*

It is important that staff involved in projects are encouraged to gain a mastery of the activities required and to become reflective practitioners so that they can consider not just what has gone badly also what has gone well and how they might apply these lessons going forward. They need to learn from their experience and gain a thorough appreciation. This builds on Dewey (1934, p. 46) and his view that there is only surface experience due to a *'zeal for doing.'* It is envisaged that any research will be by conducting semi-structured interviews with delegates of active learning based workshops.

7.5.4 Analyse control methodologies through the lens of theory

PRINCE2 and the Project Management Institute approach are based on control of the project and its environment which make no allowance for volatile, uncertain, chaotic and ambiguous environments. Other theories to apply to control systems are Ashby's (1965) law of requisite variety and Maxwell's (1867) work on governors, both theories proving that control systems cannot work in all circumstances. Weber's ideal bureaucracy (Weber, Gerth, & Mills, 1948) and the work of Merton (1940); and Merz (2011) into the dysfunctions of bureaucracies are other theories to apply to these methodologies.

Additionally, as has been contended throughout this thesis both these approaches force a focus on delivering outputs leading to *'inattentional blindness.'* By applying these lenses to control methodologies it can be shown that they will fail more often than succeed. This research will be based on literature and therefore conceptual however setting up an experiment to collect empirical data will be investigated.

7.5.5 Redefining projects

This research opportunity is that of redefining projects with the purpose of achieving benefits for the business. This redefinition should cause a change of project life-cycle leading to a cascade of change throughout an organisation. Changing the definition of projects will impact some of the processes and competences required due to the change of perspective from that of project managers to that of the business managers. It is recommended that there needs to be a greater emphasis on benefits management as the keystone of projects (Summers, 2011). This will clarify the purpose and inform the totality of a project. Benefits management needs to be embedded within projects so that the whole rationale concentrates on achieving business expectations. This also means that project success becomes focussed on achieving benefits as a single criterion rather than the six currently being chased. This research avenue will align with directions 3 and 4 from the RPM network.

7.5.6 University courses

It has been contended by Louw and Rwelamila (2012); and Ramazani and Jergeas (2015) that there is a gap in the provision from Universities and the requirements in the workplace in South Africa and Canada. There is scope for research in the UK to determine if a similar gap exists. This could be explored using surveys through social media and interviews. Using the model from the Highways Agency of evaluations one and five years after graduation may provide interesting data. If such a gap exists then there needs to be discussion to determine how best to close the gap.

7.6 Concluding remarks

The dual cycle project described within these pages commenced January 2008 and continued during the currency of my employment with the council which

ended in June 2013. Throughout this work, I continually reflected upon the work and my appreciative settings changed over this period. Schön (1983) uses the expression reflection in action to describe this type of reflection. It might be argued that reflection by its very nature is on action rather than in action although Schön suggests

> *'… to make sense of it, he also reflects on the understandings which have been implicit in his action, understandings which he surfaces, criticises, restructures, and embodies in further action.'* (Schön, 1983, p. 50)

This suggests the reflection is on action rather than in action. Schön also writes of knowing-in-practice which is the application of previously acquired knowledge to the current issue. A difference between those stuck in the knowers' stance (Hinken, 2007, 2010, Summers, 2012) and learners maybe that knowers continually apply their knowing-in-practice whereas learners are acting in the way Schön describes above; thinking about their actions and gaining new apprecative settings from these understandings. Following my departure from the Council I have reflected upon the work I conducted and projects generally and this has provided me with a deeper and richer understanding of my work and surfaced many assumptions. For example, although projects were redefined and benefits the keystone to my work the limitation of current project definitions became explicit some two years after leaving the council.

I also contend that reflection in action is constrained by the environment and culture of the organisation where the action is taken. Just as focusing on an output to cost and time causes a narrowed focus, reflection in action, in my experience, narrowed my view. Although the constraint may be simply lack of time and space to be reflective. Throughout all the workshops I facilitated time was provided for the delegates to reflect on the various activities they were involved in. It is possible to reflect on passive learning activities such as

lectures, however by providing activities the delegates had practice to reflect on and in a day's workshop they would have reflected three or four times thus creating a habit. The intention was to develop reflection as a habit to follow in their work activities as well. Even though I was taking a systemic view, due to the boundary I constructed and the system conditions it was only after leaving the council and reflecting on action that I could see a bigger picture. I did on numerous occasions, whilst employed by the council, think reflectively and very deeply about projects and the council's performance and this was most noticeable during times of relaxation such as when watching sporting events.

My research has made an important contribution to knowledge as detailed above and identified six opportunities for further research which have the potential to make significant improvements to project performance and success. This work has demonstrated that designing development programmes based on active learning activities, moving from training in which a trainer tells delegates the 'right way' to deliver projects, will produce reflective practitioners. The view that certifications in project management indicate good levels of project competence needs to be challenged. I believe that a deeper understanding of the nature of projects and the activities required is essential to improve project performance, to ensure the delivery of beneficial change. There needs to be a change of mindset so that the purpose of project is to realise benefits, creating value and this requires embedding throughout organisations through education as described in Appendix C. The evidence presented in section 6.2 and Appendix D answers the research questions; a development programme based on active learning did develop reflective practitioners and consequently project performance was improved and this improvement has been sustained.

Whilst the focus of this thesis is on developing reflective practitioners the dual cycle of this work has a broad range of coverage for as Robinson (2011, p. 16) suggests we need to alter the conversations and deal with root causes rather

than merely symptoms. I contend that after nearly 50 years of projects being defined as outputs, a belief in the application of prescriptive methodologies and control processes it is time to alter the conversation. The literature strongly suggests that projects are failing for the exact same reasons they were 30 years ago; a radical change of thinking is required to improve project performance.

The application of Systems Thinking to projects to improve performance is strongly supported by the findings and by changing the perspectives provides a radically different concept of projects from the current paradigm as discussed in section 2.2 on page 48. These include an alternate purpose of projects leading to a different definition, a systemic view of projects undertaken by the organisation by utilising a portfolio approach and an education regime which moves from training technicians to reflective practitioners.

The research detailed within this thesis clearly demonstrates that a Systems Thinking approach encompassing a variety of different perspectives of projects, a change of definition of projects to encompass the purpose of realising business benefits, and applying active learning approaches to develop reflective practice are worthy of further discourse, research, and testing.

Appendices

Appendix A Projects in Portsmouth City Council

The early years of the new millennium saw many of the council's high-profile projects fail to deliver to time, budget or requirements. The council faced criticism both informed and uninformed and from within as well as without. For example, the local newspaper frequently ran critical articles detailing project failure and multiple correspondents in the letters page were quick to join in often with little knowledge of the facts. An overview of some of the biggest projects and the issues are described in the following section.

In 1995 the Council successfully bid for funds from the Millennium Commission to construct a tower in the harbour as part of the renaissance of Portsmouth Harbour. This construction was to be called the Portsmouth Millennium Tower and was due to be completed before 31 December 1999 to celebrate the new millennium. The Tower did not open until October 2005 and was by then known as Spinnaker Tower; it was also some £16M overspent and was subject to independent review by the Audit Commission and internal review by the councillors. (BBC, 2005b).

The council had approved the beginning of the construction work based on a letter of intent rather than a signed contract. The original contractor was therefore able to withdraw from the work without any penalty. In appointing the next contractor, the contract was signed before any work could start. On this occasion, the contractor was deemed to lack the ability and so the council looked to cancel the contract. In this contract penalty clauses, had been inserted benefitting the contractor being dismissed. The third contractor managed to complete the project. There were no formal project management

arrangements in place within the council and stakeholder engagement was extremely poor. Pictured below are two views of the Spinnaker Tower taken in 2007 by the author, the side view shows the external lift part way up the structure. This lift has never been in operation due to its failure to work properly which was due to a design fault at the viewing platform end on the lift's journey.

Figure A.1 The Spinnaker Tower in 2007. (Author's work)

Figure A.2 Side view showing the external lift. (Author's work)

The local media reported extensively and negatively on the Council's performance; a selection of headlines being

'Tower crisis deepens' (Maddox & Owen, 2003),
'Tower enquiry nearing end - after 18 months' (Owen, 2003),
'Image blunder puts tower in new cash row' (Maddox, 2003),
'Another tower delay as paint starts to fall off' (Maddox, 2004b),
'Alarm bells ring over crumbling concrete' (Maddox, 2004a),

and from a national daily newspaper

> *'Tower opening delayed as three get stuck in lift'* (Lewis, 2005).

The council was criticised by the District Auditor in the report produced following the Audit commission's review; one comment being

> *'Instead of having in place a strategy which provided a model for the management of the project, the Council has proceeded by short term expediency and by reacting to events. It is therefore unsurprising that the Council has been outmanoeuvred at times, including by both PSTL and Mowlem. The failure by the Council to manage the tower project effectively has proved costly to local taxpayers.'* (Childs, 2004, p.4)

This report also stated that

> *'…on occasion, material information has been withheld from relevant members;'* and *'decisions have been taken by members without all relevant factors and risks being presented to them by officers;'* (Childs, 2004, p. 5).

This review strongly criticised the arrangements for project management, performance management and contract management in place in the council. Because of this, the Audit Commission undertook annual reviews to determine the status of project management, performance management and contract management within the authority. In section 6.3 I compare the council's approach to contract management and performance management and contrast the results with those achieved by my approach. Following this review the then Leader of the Council resigned and the City Solicitor retired following a period of suspension as a direct consequence of the perceived failure. (BBC, 2005b) Table A.1 also shows the impact on the ruling party, as a further consequence of the council's travails with the Spinnaker Tower; control moved from Labour in 1995 to the Liberal Democrats in 2003.

Year	Conservative	Liberal Democrat	Labour	Others	Total
2013	12	25	5	0	42
2012	12	26	4	0	42
2011	17	23	2	0	42
2010	16	24	2	0	42
2009	17	23	2	0	42
2008	15	20	3	4	42
2007	17	19	5	1	42
2006	16	19	5	2	42
2005	14	21	7	0	42
2004	14	20	7	1	42
2003	15	16	11	0	42
2002	15	12	14	1	42
2000	16	8	15	0	39
1999	10	9	20	0	39
1998	8	10	21	0	39
1996	6	12	21	0	39
1995	10	9	20	0	39

Table A.1 Political makeup of Portsmouth City council 1995 – 2013 (Adapted from Portsmouth City Council, 2012a)

This project saw a budget overrun of £16M; twice the original estimate and the Tower was opened 5 years later than expected. The external lift never worked correctly and ironically at the opening ceremony the project manager and other council officials were stuck half way up the Tower in this lift for over an hour due to a fault (Lewis, 2005). Despite these issues, the visitor figures consistently exceeded expectations providing additional income for the council. The Spinnaker Tower literally put Portsmouth on the map, the British Broadcasting Corporation (BBC) weather maps, the image is used in the opening credits of both BBC South and Meridian's weekly news programmes broadcast between 6 pm and 6:30 pm and recently the Jonathon Ross show. In addition, for many years a live view of Portsmouth Harbour prominently featuring the Spinnaker Tower was visible behind the presenters of Meridian News. These benefits were not anticipated in the business case and probably have had a significant impact on the local economy. I am personally aware of two senior appointments being convinced by visiting the Tower, which has commanding and impressive views

over the local area. For all the problems in delivery, the Tower is an iconic structure that has put Portsmouth firmly on the global map.

The next high-profile project to struggle was the construction of a special needs school named Mary Rose School; now known as Mary Rose Academy. This project started in 2004/5 and the school was handed over in 2007 having suffered an admitted delay of about six months due to '*design and construction issues'* (Mary Rose Academy, 2014). Yet again the councillors insisted on inquiries into this project; requesting three which caused the District Auditor to comment, *'…this suggested a blame culture within the council'* (Various, 2000-2013). Again, the local media produced several negative stories;

> *'Dismay at delays to special school project', 'Tower fiasco fear over new school', 'Silence over school delay 'disgraceful'', and 'Anger at failure to reveal delay to school.'* (Maddox, 2006a, 2006b, 2006c, 2006d).

This project was subject to the project management arrangements introduced following the Childs report into the Spinnaker Tower project. These required a project review board to monitor project progress and that the project manager be a PRINCE2 practitioner. Again, difficulties with the contractor surfaced and an extraordinary exchange between an elected member and a paid officer became public knowledge with each accusing the other of lying. Poor stakeholder engagement was also a problem with this project, and there was no benefits management involved. Other issues discovered were poor planning and no risk mitigation, indeed little thought given to any threats to the project. As with the Spinnaker Tower, the benefits realised from this project in terms of parent satisfaction and reputation for the council became clear sometime after the school was handed over to the business although not considered as part of the business case or Cost Benefit ratio.

Concurrent with these projects during 2002 – 7 although not in the public domain until 2009/10 was a project to implement a Real-Time Passenger

Information system. This system was never fully implemented and was turned off in 2006. It was hoped to implement a Real-Time Passenger Information system at some later date (Moon, 2007). The costs of this project were some £6M over budget. This project was an 'ego' project of the project manager, a term to be applied loosely on this occasion, which he used as a platform to become a renowned expert in the field of Real-Time Passenger Information systems. The contracts the council signed during this project were skewed in favour of the contractors, so that the council was paying maintenance on a system that did not work, in fact never worked. The technology was unproven and stakeholders totally ignored, e.g. the Information Technology Service was not consulted and consequently the software procured proved to be incompatible with the existing infrastructure. The issues of poor planning, no concept of benefits management, poor stakeholder engagement, and no risk management were evident in reviewing this project. Serious questions were also asked as to how the project and the contractor's payments were authorised by senior managers.

In 2008, four years on from the Tower reports, an internal report on this project stated amongst other failings, *'Councillors were never consulted'* (Graham, 2008). A councillor also stated *'…the report was almost a carbon copy of the Spinnaker Tower fiasco'* (Graham, 2008).

Another councillor was reported as saying

> *'All those processes and procedures were supposedly put in place as a result of Spinnaker Tower and the Semmens Report but clearly people are still going ahead and making their own decisions.'* (Graham, 2008).

This report was produced after the two interventions to improve project performance had been attempted and show that they had little impact on project performance with similar results and failings recurring.

I will outline one further project which struggled during this period which was a project to implement a new financial system to replace the system which was

mainframe based and owned by Hampshire County Council. This project was known as the Next Generation Finance System and overran on both budget and time. It also caused the Authority to fail its legal obligation to submit school accounts on time. At one stage, all 120 staff in the IT Service were working on this project. This project overran by two years and overspent its £5m budget by around £2m. This overrun didn't include the costs of the internal staff who worked on this project as not including the cost of internal staff on project activities in the business case was a common shortcoming of council projects at this time. When a charge for, say, legal work was made the budget would be exceeded. This project also suffered from a lack of thorough investigation into the options and poor planning. Moreover, in common with the other projects discussed non-existent stakeholder engagement. This system was never fully utilised and the finance officers and managers continued to use their own designed spreadsheets rather than the Next Generation Finance System. There was also a self-service element which would allow staff to update their personnel records and access pay details which over ten years after project completion had not been used, despite being purchased together with maintenance contracts in place. This project also resulted in the project manager gaining promotion. In fact, apart from the City Solicitor retiring after a period of suspension due to the Tower project no one in any of these projects suffered any negative consequences and two of the project managers were promoted with pay rises, which led me to conclude that the council rewarded failure.

These and other project failures led to two interventions being undertaken; in 2003 and 2005 without any lasting improvement in the council's project performance. Following these interventions, the council procured the services of KPMG to review the projects and advise on means of improving performance. This activity concluded in June 2007 and because of staff departures, I stepped

forward to lead project management and my successful attempt to improve project performance is discussed in the pages of this thesis.

There were some successes for example a scheme to replace a road bridge over the main railway track and the projects in the Planning Service. The output for the replacement bridge scheme was delivered one month early and £1m under budget. The nature of this project meant that the main benefit was that a lump of bridge did not fall onto a passing train causing injury to people. This project was characterised by superb stakeholder engagement for example the residents were informed by letter within hours of the movement of a lamp standard and they were accommodated in a hotel when noisy night work was being undertaken.

The Planning Service successfully implemented an e-Planning strategy where an Electronic Document Management System and replacement Information Management System was implemented leading to the Service being one of only four throughout England and Wales to achieve a full complement of Pendleton points. This success over a period of years led to the government rewarding the service with around £4m. Achievement of Pendleton points was the criteria used by the government to check Local Planning Authorities progress towards e-Planning. There were 21 in total and were compiled and monitored by the planning consultancy Pendleton Partners.

Appendix B The portfolio element

This appendix details the portfolio element and communication of the model. The model was composed of three elements wrapped round by communication;

1. Communication, this was the wrapper for all the elements of the model and was important in each of the three elements. I consulted extensively on the proposed model and listened to the views of the various stakeholders. It was important that the stakeholders' views were considered and for the staff executing the projects something of a novelty as they had not been consulted during the previous two attempts at improving project performance.
2. A portfolio approach whereby projects were selected, based on their strategic fit with the means to stop projects if the business results were no longer viable. This involved senior managers and councillors in the decision making. Also included were the governance arrangements comprising the structure for the management of projects as well as peer review of the documentation relevant to each corporate project. Roles and responsibilities were formulated and stage gates were introduced to assist in the monitoring of projects as part of this element.
3. A community of practice where staff involved in projects could meet regularly to discuss experiences and gain information that would help in their projects. Attendees were not limited to project managers however, staff from the Legal Service, Procurement Service, IT Service, Parking Service and Planning Service also turned up regularly. The formal community of practice was titled the Project management group and were instrumental in designing the approval process that formed a key part of the portfolio element above. There was a wider network that

included senior managers whom I communicated with on a regular basis as will be explored further in the following sections.

4. A range of learning activities that included a development programme designed to give the delegates the competences to successfully deliver projects. There was a formal programme of education for staff involved in the commissioning and execution of projects with separate courses for project staff and project directors. The underpinning concept of these courses was that of active learning and elicitation from the delegates applying the Triple E model. Additionally, I provided advice and guidance to project managers throughout the project lifecycle with an emphasis on the early stages to ensure the relevant resource managers were informed of the project.

The main reason for an approval process was the need to bring more transparency to projects as it became clear from my investigations that senior managers and councillors felt projects were being started without any scrutiny or often approval. This also enabled me to collate a full list of projects being undertaken throughout the organisation and begin to appreciate the staffing and monetary interdependencies and requirements across the whole organisation. This listing was mapped to the corporate objectives which enabled the corporate project board to understand how projects were aligned to the Council strategy. This exercise revealed an unbalance due to a high number of projects meeting the regeneration objective, with less meeting the other seven objectives. There was a secondary reason for a formal approval process, due to my reflections upon the discussions held with councillors and senior managers I realised that an effective and robust form of governance was required to satisfy their requirements. I appreciated that this was a resolution approach and would not dissolve the issue which is why the second two elements were needed in the model. The previous interventions had focussed on control and compliance processes; specifically cost and time requirements, a concentration on some of

the parts rather than the whole of projects and entailed a top down approach without engaging the stakeholders. This also suggested a belief in the 'bigger hammer syndrome' (Senge, 2006, p. 61), i.e. that the solution is control and compliance measures; if they are failing it is the fault of the people not the measures therefore we need to apply yet more control and compliance. This leads to a reinforcing feedback loop with project performance becoming worse and worse as the focus is on making the '*wrong thing righter'* (Seddon, 2008). The two previous interventions were predicated on process and ignored the people aspect, especially their education needs. My explorations concluded that the following areas were either omitted or poorly addressed:

1. The changes had not been embedded in the organisation largely due to a failure to involve the staff who deliver the projects with the consequence that project execution was inconsistent and piecemeal across the council,
2. There was little education included in the interventions; what there was being limited to PRINCE2 training and a one-day workshop with the emphasis on compliance training,
3. Both approaches were top down and did not consider the stakeholders' perspectives, especially those involved in project activities,
4. There was no attempt at a systemic view which could appreciate the context nor the interrelationships, interdependencies and interconnectedness needed for good project performance.
5. There was a lack of genuine communication with the various stakeholders, of especial interest the lack of engagement with the practitioners and project commissioners themselves.

I designed a model based on my appreciation of the organisation and a possible means of improving performance. The identification of these areas provided an insight to how my model needed to be introduced into the organisation. The two

previous attempts at improving project performance, which had failed, had not engaged with all the stakeholders nor was there any meaningful communication. A great deal of the communication was simply in the form of written edicts being passed down to project staff without their involvement and consequently engagement. From the previous change initiatives, I had managed I believed good and regular communications, linked to a strong education policy, were key to successfully embedding the new processes, the first step to dissolving the issue.

In the early phase, the main communication activity was data gathering, this involved gaining an appreciation of the requirements each stakeholder had regarding the organisation's commissioning and execution of projects. Although the model was already determined in broad scope the exact composition of the elements required expansion. This involved interviews with managers and other staff across the organisation as well as gaining data from other organisations on their project execution methods.

The ongoing discussions with the Strategic directors and Heads of service involved discussing their proposed projects for the coming year as well as a chance for me to advise them of progress with project performance, any changes and new thinking. A key part of the communication process was in providing advice and guidance to project management boards, project managers and the delivery teams (see Figure B.1), throughout the project life. Throughout all the communications the realisation of benefits was emphasised and reinforced as being the purpose of commissioning and executing projects. These discussions also assisted in the updating of the Council's portfolio of projects.

The main communications were based on a hub and spoke arrangement as depicted in Figure B.1, with the external communications shown in red.

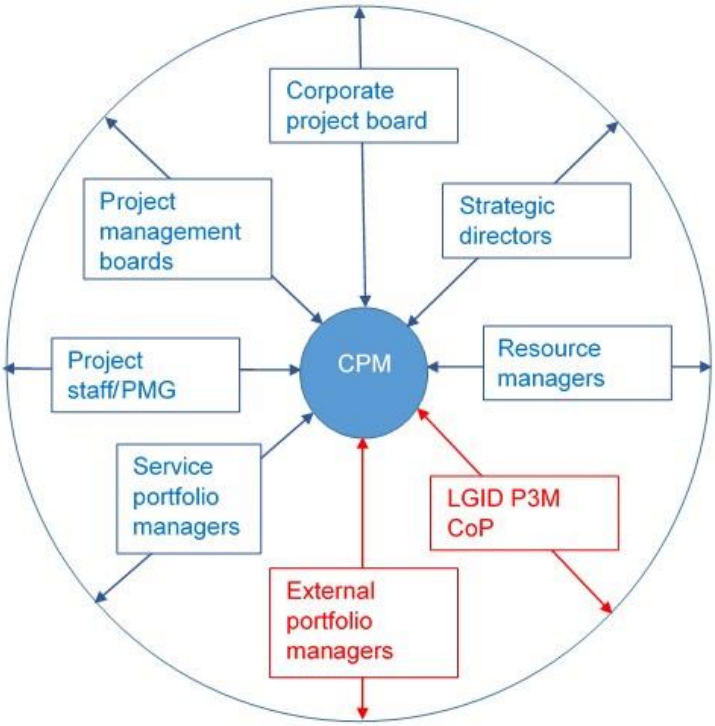


Figure B.1 Hub and spoke arrangement of communications. (Author's work)

The central component, the hub titled CPM in Figure B.1, was my role of corporate programme manager and in this role, I received and disseminated information internally and externally as shown in the figure.

It was also important to ensure that all stakeholders were involved and given the opportunity to contribute to improving project performance not just the project practitioners. In my appreciation of project performance, it became clear that stakeholder engagement was often absent in projects with 'consultation' being assumed as adequate. This was clearly an issue with the final design of the Spinnaker Tower when although great store was set on allowing the public to choose the design from three options there was however no choice given over whether the residents wanted a tower in the first place (Cook, 2004, pp. 40,50) and *'…PCC and the developers weren't so much consulting the public*

but telling the public what will happen' Cook (2004, p. 27). From my appreciation of the previous interventions it seemed that this telling rather than engaging had prevailed. That said the approval process was a must have and there was no consultation on whether to have such a process, however the community of practice agreed there was need for governance as was stated by some *'something needs to be done'* and the community were empowered to specify the details for example; which documents would be mandatory. The broader network of practice also recognized the need for a formal approval process. The community also discussed and agreed the topics for the development programme and some of the senior practitioners contributed to the content and acted as mentors to the delegates.

Throughout my time in this role I maintained a high level of engagement with stakeholders with a mixture of formal and informal, e.g. formal annual meetings with the Strategic directors and Heads of service and advice given to project managers in an ad hoc manner. This in way I encouraged the stakeholders in taking ownership and responsibility for improving project performance rather than leaving it to one individual. A great deal of my time was spent engaging with, gathering and disseminating information to the various stakeholders. The majority was face to face although written communications also played a part in this process. The communications went two ways, and in this way, the appreciative settings of the various stakeholders were obtained. These differing appreciative settings were synthesised and valuated before action was taken on this data. This process was reiterated throughout this research by the application of the Triple E model.

The model was designed to eventually dissolve the problem of poor project performance in the Council however, there was an immediate need to deal with the symptoms whilst gaining a fuller appreciation of root causes. Due to this immediate need resolution through the portfolio element was applied first.

Ackoff's (1994, p. 185) problem paradigm was applied with the elements of the model correlating approximately to each of the four options as follows:

1. Absolution – do nothing – This was not an option within the Council, there was unquestionably a serious problem with project performance and it needed attention. The senior management including the councillors needed to see action.
2. Resolution – portfolio element – This is a common response to poor project performance however it only satisfices and the problem recurs, as Cobb's statement clearly shows.
3. Solution – the Community of practice – This enabled staff involved with projects to share experiences and provide opportunities to experiment with different ideas, in turn sharing the results so extending knowledge through collaborative learning.
4. Dissolution – education elements – This was an important element of the model being a means to make improvements sustainable across the Council. By educating staff involved in projects dissolution of the causes of poor project performance was achieved.

Additionally, education and the co-creation of knowledge was threaded throughout all the elements linking the actors in engaged scholarship through conversations and collaboration Van de Ven (2007, p. 246). There were regular conversations with senior managers and other staff to enable collaboration and sensemaking of their requirements and knowledge of projects. These discussions were in addition to the more formal approaches of the project managers group and development workshops.

The portfolio element of the model required projects to have both a board and delivery team, and the larger and higher risk projects required approval from an executive board, known as the corporate project board, comprising senior

managers and the Group Leaders of the political parties as shown in Figure B.2, and listed below. This board also considered the strategic alignment of these projects.
The corporate project board comprised

1. The Leaders of the political parties
2. The Chief executive of the Council
3. The City Solicitor and strategic director
4. The strategic director responsible for finance, later replaced by the strategic director responsible for regeneration
5. Head of audit and performance improvement
6. Corporate programme manager (my role)
7. Administration support
8. Project directors and managers for the projects under review

The corporate project board met for the first time in April 2008 and for the first 12 months each quarter. Thereafter throughout 2009, 2010 and part of 2011 the meetings were monthly. In April 2011, it was decided that as project performance had improved significantly the meetings would revert to quarterly.

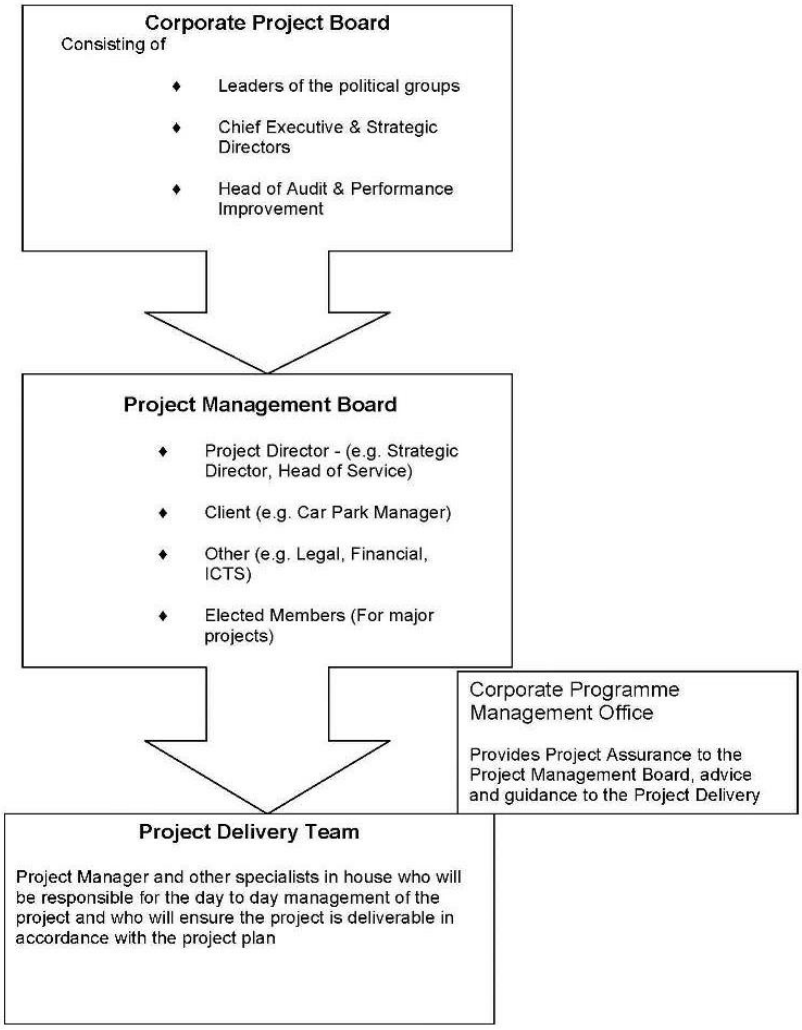


Figure B.2 Project structure arrangements for Portsmouth City. (Author's work based on PRINCE2 manual, 2005)

The model was introduced into the Council in stages with the community of practice resurrected and expanded from an earlier group and the portfolio element designed in consultation with this community and senior managers. The community of practice determined that certain documents were mandated for all corporate projects; these projects being determined by a classification tool which scored projects against five criteria. The criteria were

1. Whole life cost, not just the cost of the output, also the maintenance of the output and training costs, to a maximum of five years which was determined as a realistic time span. This aligned with the evaluation plans required as part of project approval.
2. Impact on organisation, this assessed the impact on the council if the project was not delivered.
3. Impact on the service commissioning the project, this assessed the impact on the individual service which commissioned the project.
4. Complexity, this considered whether the project was novel or routine and the level of experience of delivering similar projects.
5. Political impact, basically analysing what would happen to the council's reputation if the project went wrong.

Each of these criteria was scored 1 – 5, very low, low, medium, high and very high. The projects were classified following scoring using this tool as major, medium, minor and not a corporate project, although the naming of the last classification was not ideal. In classifying the projects if any project scored 5 in any of the criterion it automatically became a major project. The classification of projects determined the level of scrutiny and oversight of projects and which board approved project continuance at each stage.

As discussed in section 4.4.1 six of the seven PRINCE2 principles were utilised in the governance of the portfolio element. The focus on delivery of products principle was excluded as projects are commissioned to create value (Winter et al, 2006). In addition, I deliberately redefined projects with the purpose of realising benefits rather than the historic definition of delivering outputs to cost and time. The following table B.2 shows the six principles detailing how these were utilised.

Principle	Utilisation
Management by stages	The approval process required authorisation at specified stages, project mandate, feasibility, planning and initiation, delivery and output handover. This also enabled the organisation to confirm the project was on track to deliver the benefits anticipated. This management by stages principle allowed the organisation to determine the projects which best fitted the strategic direction required.
Management by exception	The idea is to allow project managers the space to deliver the project working with tolerances and reporting using highlight reports. Some project directors embraced this concept with meetings of the project management board being called only when a decision was needed, however several required monthly meetings to monitor their projects.
Roles and responsibilities	Responsibilities were defined for all roles in the project process including the boards as well as people. At the initial meeting of a project management board I discussed with the board their responsibilities, having already met with the project delivery team to advise them of their responsibilities.
Continued business justification	The most important of the principles, this ensured the project was scrutinised to determine if it continued to provide a good return on investment. This also required viewing the project from the perspective of the business and allowed for a systemic approach.
Tailored to the project environment	In practice this included tailoring to the business environment and the involvement of the project network assisted in this principle.
Learn from experience	This was considered important regarding the educational approach underpinning my model. This learning was not just through retrospective reviews; the learning was garnered and shared throughout the lifecycle of projects. The learning was shared through the LPMDP as well as the Project Managers Group.

Table B.2 The six principles applied to the governance of the portfolio. (Adapted from Office of Government Commerce, 2005)

Although I believed the learning and development element to be the most important this required a much longer lead time and to meet stakeholder's expectations I initially concentrated on the approval process and gathering details on the in-flight and proposed projects within the organisation. This enabled senior management to view all the projects across the organisation. The projects were mapped against the Council's strategic objectives and as part

of the peer review process the alignment with the Council's strategy was considered.

The community of practice needed reinstituting and the first few meetings were involved in shaping the governance requirements. Once these had been agreed and final approval given a series of presentations was arranged highlighting the need to consider the staff requirements of projects and emphasising how easier the project would flow with early discussions with the appropriate staff manager. These included presentations from the corporate risk and insurance manager, a communications manager, staff from development control as well as others.

The work on the portfolio element was the dominant feature of the early learning cycles discussed in Chapter 4. Appendix C which follows provides details of the learning and development activities in which the LPMDP was paramount.

Appendix C Practitioner development

Vickers (1968b, p. 130) writes of an appreciative system of learning as a continual process which he believes has three phases, *'information, valuation and action.'* Vickers suggests that individuals need to learn to become appreciative systems and the design of the learning and development suite was based on this concept beginning with a learning and development strategy (Furnham, 1997, p. 409) which aligned with the organisational requirement of projects delivering benefits. This strategy was informed by data from other government organisations, project management associations, a review of literature and an understanding of the organisations requirements. The Triple E model was utilised in both the design and delivery of all development activities undertaken as part of my intervention.

At the commencement of this intervention I reviewed the previous approaches to educating the organisation's project staff. The first intervention which commenced in 2003 following the enquiries held into the Spinnaker Tower project resulted in several staff being sent on PRINCE2 courses and the organisation having 30 certified PRINCE2 practitioners of whom 15 never delivered projects and 32 certified at PRINCE2 foundation level however no staff were certified as Managing Successful Programs practitioners nor by any of the project management associations. This situation led to the organisation thinking it had good project managers whereas staff continued to struggle with successfully delivering projects. Despite these qualified project managers, the organisation’s projects continued to fail not only in meeting cost and time targets but also with little realisation of beneficial change.

The second intervention which started in 2006 designed an in-house learning

and development course entitled ‘An introduction to Project Management’. This was a full day event which gave delegates an overview of project management; this workshop emphasised delivery of an output to the triple targets of cost, time, and quality. This course had been running for two years and had not been reviewed in that time. Apart from the original design there had been no involvement by the officers responsible for project management within the Council and this course together with the whole learning and development framework needed updating considering new knowledge in the management of projects. This lack of review left project delivery staff poorly equipped to deliver projects successfully as described in Appendix A. The workshop was delivered as a series of lectures with PowerPoint’s and although there were activities for the delegates to try and reinforce the learning this workshop was in the main transmissive in nature.

I applied Vickers approach to the existing ‘An introduction to Project Management’ workshop which I attended to gain information about the content and delivery style. This information was reflected upon and valuated before a redesign was applied in action, this process was iterated throughout all the learning activities in this intervention. Following this appreciation of the project management learning and development offering the existing workshop was revised with further workshops devised and two programmes one for project managers and the other for project directors also designed. This was to provide a more holistic approach emphasising the purpose of projects to realise benefits.

The first change I made in the Introductory workshop was to redefine projects with the purpose of the realisation of benefits. Consequently, in all future workshops the project purpose of realising benefits became paramount and the underpinning principle for all future work. The method of delivery was also changed with delegates being split into groups of five or six and sat around the

room which was set out in what is described as cabaret style or restaurant style see Figure C.4. They were asked a series of questions to discuss in their groups and then feedback their findings to the whole cohort. This provided the explore part of the Triple E model. The first question was a simple ‘why does Portsmouth City Council commission projects?’. Other questions would then be posed so that the facilitators were eliciting information from the delegates who varied in experience and knowledge. After each of the questions and feedback there was a discussion to explore the subject further with examples from the Council’s portfolio to assist in grounding the topics in practice. There were also activities to further reinforce the learning and constituted the experimentation part of the Triple E model.

The first activity undertaken by the delegates on the introductory workshop involved giving the groups a pile of newspapers, a pair of scissors and some brown parcel tape together with a small figure and requested that they build a plinth. This was the full extent of the instructions given to the delegates and we as facilitators simply stood back and observed what happened next. Throughout 2008 when we ran five of these workshops the delegates in the early workshops just dove into the activity and started twisting the newspaper into a plinth and then sat back as they felt they had finished. It was then pointed out to the delegates that none of them had asked any details such as how long did they have to build the plinth, how high did it need to be, the quality requirements, what were the specifications, did they have any other resource available or indeed any questions at all about the activity. This tended to confirm the view already formed from analysis of the projects within the Council that there was a tendency to either skip or certainly skim on the planning process and get straight into the actual delivery mode. This lack of planning or poor planning was found by Nelson (2005, 2007) in his work as a contributory reason for project failure. So very early in my tenure I could confirm that planning was an issue which meant that when the development programme was designed a

workshop on planning was included.

Following the introduction of the project approval process into the organisation a further workshop was developed and titled *'*Delivering projects the PCC way'. This workshop was designed to introduce delegates to the new portfolio arrangements, allowing them to explore the reasons for the approval process and project structure and to practice how it would operate. In terms of delivery style, the concept of using teams to create discussions around specific topics and activities to help reinforce the learning was continued. So, for example the delegates in their various groups would be asked to consider why the organisation would need an approval process for its projects. This ensured that the delegates gained an understanding of the requirements and could understand the reasoning for these requirements. As stated earlier it was accepted that the current arrangements had not been successful and the project staff themselves needed a more robust transparent process. In this workshop, there was also an activity involving a business case and other documentation of a project and the groups acted out the role of the project management board reviewing the project and deciding whether to authorise its continuance to the next stage. This was a genuine project that the council had started but which had been stopped saving £4.2 million in prudential borrowing when I challenged the business justification of the project. Interestingly every time that this workshop was run and this activity carried out the delegates all wanted to stop this project, whereas over £250,000 was spent on specialist legal and engineering fees despite the lack of business justification. An e-learning course was also designed and made available over the organisation's intranet as an alternative method of delivery for this workshop.

A third workshop was added *'*Getting a project started' in which the requirements following the approval of a project mandate and leading to the production of the project initiation documentation were explored. In addition,

sections were included on the various teams in the organisation who needed to be informed and involved in the project, e.g. Finance, Legal, Information Technology, Media, Risk and Insurance. This introduced the good practice of informing resourcing stakeholders early in the project process rather than when any specialist function was needed. In this way practitioners, could plan their projects better with appropriate front loading.

The model I was working on and introduced to the senior management in the year 2008 as shown in Figure C.1 had always been underpinned by a strong educational ethos and by 2009 with the approval process, the corporate project board and the portfolio element in place and functioning as anticipated I was able to turn my attention to designing a development programme for project staff.

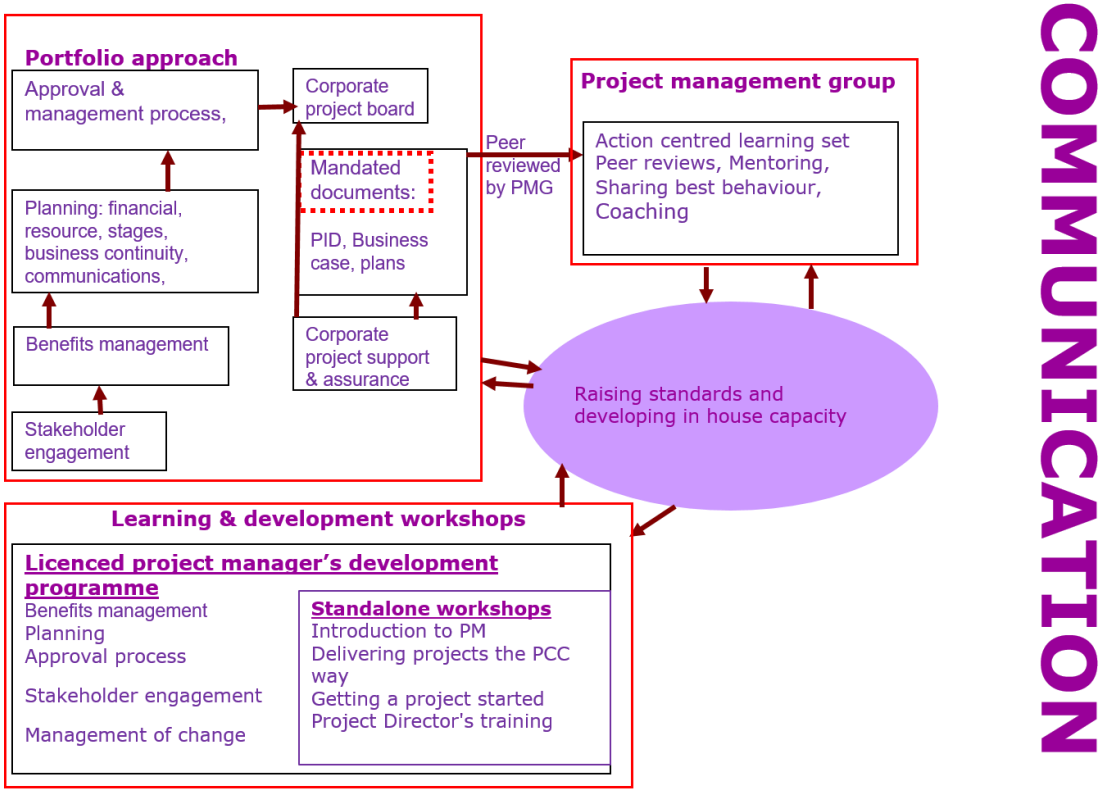


Figure C.1 Diagram of model introduced into Portsmouth City Council. (Author's work)

Pant and Baroudi (2008, p. 124) state the case for

> *'A more balanced approach between hard and soft concepts would see them complementing each other and enhancing project management education in the process.'*

Whilst this argument is for University education this applies also to educating project managers in the workplace which should also balance the design of educational activities. In the design phase, these concepts were considered so that there was a mixture of technical and soft skills within the learning and development activities. This was an important part of the learning and development design ensuring the delegates were encouraged to learn and practice both hard and soft skills. The information and valuation phases led into the action phase. All the learning and development workshops were designed to be transformative and over the iterations emphasis was placed on

> *'Creating learning environments that promote active learning, critical thinking, collaborative learning, and knowledge creation.'* (Long & Holeton, 2009).

I had been in discussions with the Learning & Development manager regarding a formal development programme and in July 2009 following a less than successful attempt by some staff to become PRINCE2 practitioners a meeting was convened. This included the Learning & Development manager and the staff who were disgruntled by their experience with PRINCE2, myself and the trainer who was to become my co-facilitator on the LPMDP. The view expressed by the examinees was the lack of relevance to their work of the PRINCE2 training they had received. Consequently, I was invited to design a programme with these staff as the delegates. This was a design and pilot programme with a view to running the programme in later years. In designing

this programme, I drew on previous experience of a management development programme I had attended and my Master's degree. The management development programme involved taught units, a project, application in the workplace and mentoring whilst the degree programme was a mix of taught units and work based learning units with a tutor and mentor. Throughout this degree programme there was an emphasis on reflective and reflexive practice with the challenging of mine and other's assumptions.

The LPMDP comprised workshops, learning labs, tutorials and mentors drawn from experienced managers, mainly from the project world however not exclusively and the delegates were expected to produce a learning contract. This formed the infrastructure of the programme and I was keen to create learning environments with the intention of enabling the delegates to gain an understanding of the activities required to successfully execute projects, leading to practitioners who were adaptable (Wysocki, 2010) and capable of dealing with the complexity of projects.

In designing the LPMDP there were three distinct areas of activity.

1. Programme infrastructure – the combination of workshops etc.,
2. Content - the subjects covered
3. Method of delivery - how the facilitators presented the material with an emphasis on elicitation, experimentation and enquiry

The following sections provide details of these elements.

C.1 Programme infrastructure

I had completed a management development programme in 1985 and a work based learning Master's degree in 2005 and these formed the basis for the initial design of the infrastructure of the LPMDP. The management development

programme involved taught units, a project, application in the workplace and mentoring whilst the degree programme was a mix of taught units and work based learning units with a tutor and mentor; the tutor being from the University and the mentor from my workplace. This was structured as a project with a mandatory learning management unit requiring the completion of a learning contract and reflective reviews at the half way point and the conclusion of the programme, like a project with a business case, highlight reports and post-project review. The degree required self-assessed learning, not for individual units which were examined, however for the overall learning outcomes. As Jaros and Deakin-Crick (2007, p. 424) write *'They must be able to learn while working on the problem and use self-assessment to control the direction, intensity, and standard of their work.'* The underlying concept was to learn the theory, then apply in the workplace reporting on the findings or comparing theory with in practice actions. Throughout this degree programme there was an emphasis on reflective practice and challenging mine and others' assumptions. The learning management unit ensured a self-directed learning approach with the student being responsible for their own learning and the balance between taught units and work based learning units. In designing the LPMDP the concepts of both the management development programme and the work based learning degree programme were utilised with a mixture of learning options. This comprised workshops, learning labs, tutorials and mentors drawn from experienced managers, mainly from the project world however not exclusively as well as a learning contract from the delegates. This formed the infrastructure of the programme and I was keen to create learning environments with the intention of enabling the delegates to gain an understanding of the activities required to successfully deliver projects. I was looking to encourage people to be adaptable and capable of dealing with the unknowns and unknowables that are present in projects.

The Solutions Focus (Jackson & McKergow, 2007) concept of imagining how a better future might be achieved was applied to the practitioner development element. This informed the approach used in the LPMDP by considering what competences future project managers needed and then considering the approach to achieve these competences. I was particularly keen to develop certain competences in the Council's project staff, such as;

1. Adaptable, project practitioners need to be flexible to meet the changes most projects are subject to. This required a mastery, an understanding of the purpose of the project and the activities required in commissioning and executing the projects.
2. Able to think systemically, project practitioners need to understand the bigger picture of their projects rather than focus on delivering an output to cost and time. There also need an ability to drill down into the detail as shown in Figure 2.16 on page 106. This requires the ability to analyse and synthesise data.
3. Able to improvise, this competence flows from adaptability and systemic thinking. The consequences of actions are considered holistically so that if a consequence occurs the project manager can adapt as needed.
4. Critical thinkers and evaluators, project practitioners need to be able to think about the activities needed and apply them appropriately and proportionately in the project context. As an example, the level of stakeholder engagement for a six-month project will be different to one which is scheduled to last 3 years.
5. Challenge, prepared to ask why? A vital competence for employees not just project practitioners, why are we doing this activity should be constantly asked and leads to continuous business justification.
6. Continuous learners, project practitioners need to be continuous learners and aware of the learning opportunities in projects. This is a way of

preventing project practitioners falling into the dogmatism trap (Reynolds & Holwell, 2010a, p. 6).

These are behavioural competences and the LPMDP was designed to help nurture these competences. The LPMDP had as its purpose; improving delegates' understanding of the activities needed to successfully execute projects emphasising delegates becoming *'learners not knowers'* (Hinken, 2005),developing their reflective practice, and able to adapt to the changing circumstances of projects.

The structure of the programme was designed around a core element of seven whole day workshops interspersed with half day learning labs, written work and some form of project either live or virtual. Figure C.2 shows the infrastructure of the LPMDP iteration in 2011 – 12 the last iteration.

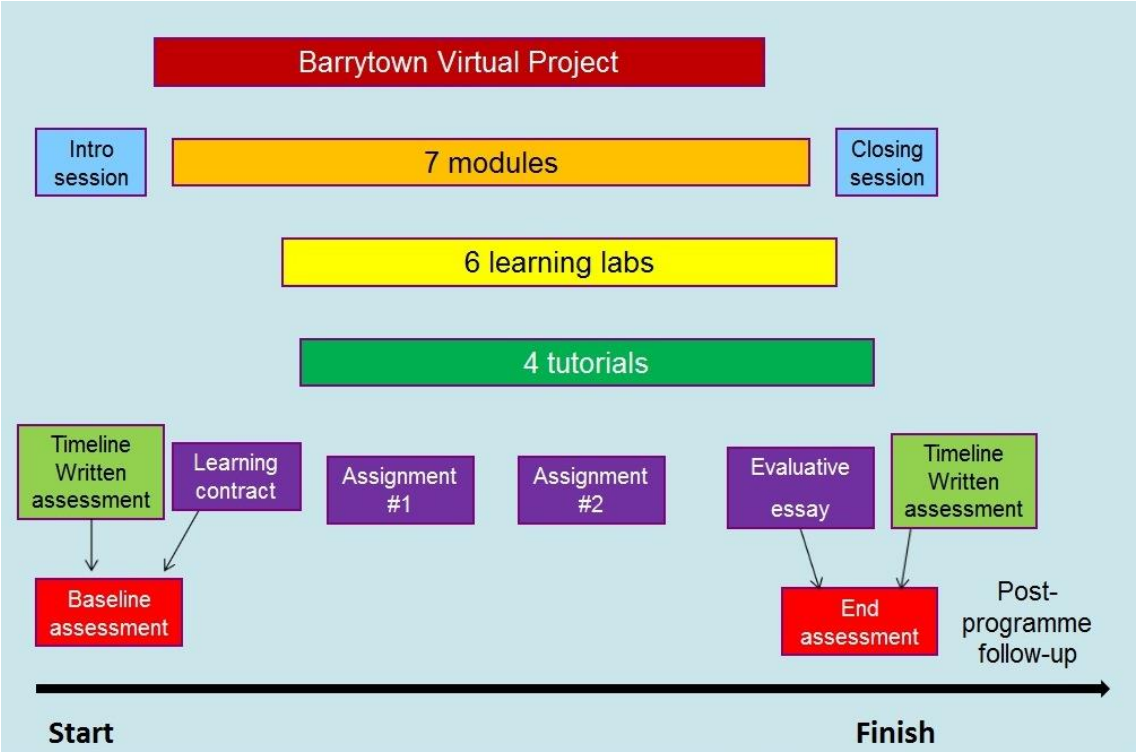


Figure C.2 LPMDP infrastructure 2011 – 12. (From LPMDP brochure 2011)

Each LPMDP commenced October and concluded in June the following year with a feedback session facilitated by someone who was not involved and without the LPMDP facilitators being present. The first cohort were selected because they had undertaken some PRINCE2 training and two out of seven delegates failed to complete the programme. This first iteration was a design and pilot one and because of this experience future programmes were preceded by open days with drop in sessions every hour where the programme was described in detail and left potential delegates in no doubt as to their and the facilitators roles in the programme. This was followed up by an introduction day for the delegates which again emphasised the approach and that the delegates would be doing the work and not passively receiving information. This robust approach did slow the attrition rate and the third running saw only three drop outs from 32. In total 61 people commenced the programme and a total of 9 withdrew. Not every attendee wanted to undertake a transformative learning experience as some found being more responsible for the results uncomfortable.

C.1.2 The workshops

The seven workshops were as follows

1. An introduction to the programme stating the purpose of the programme and the format that it would take. The delegates could agree rules of engagement so that everyone was comfortable within the workshops. This was followed by Getting a project started which covered the discussions and consultations which were needed in the early stage of a project. It was stressed that discussions with staff from other areas needed to be held early in the proceedings.
2. Benefits management, this was introduced very early in the proceedings as stated throughout this thesis benefits was the

underpinning rationale for projects, benefits were how I defined the projects so very early on benefits was introduced to the delegates to enable them start to understand the rationale for the commissioning of projects and also to understand that a project is not simply about delivering an output that there is a much bigger picture to be taken into account and which needs to be considered by the organisation

3. Planning had been identified as an issue and then confirmed in the introduction to project management workshop using the plinth activity so I deemed it important that planning be introduced early on so that again using elicitation methods delegates themselves would begin to understand the importance of planning, why planning was so important and the consequences of poor planning and what they could do to improve their own planning. This workshop was run over two days in the early iterations

4. Project management the PCC way which included the exploration of the approval process, why we had the approval process, what was the purpose of the approval process and the various activities required to start the project.

5. Stakeholder engagement. This was an important area which had been identified as poor, sometimes non-existent within the council's project delivery. It was also noticeable that the two previous interventions had exhibited poor stakeholder engagement. It was necessary for delegates to understand why stakeholder engagement was so important. This required the delegates to work through a stakeholder engagement process not simply the production of a communication plan.

6. In the first iteration, this was quality management however later in later iterations this was changed to change management. I felt that project staff needed to understand change and all its ramifications so that within this workshop we introduced Everett's theory of diffusion and an online change intervention simulation, Kotter's theory of change, Lewin's

theory of change and the Kubler Ross model as applied to change within the organisation were also discussed with the delegates.

7. Finally, a workshop on project reviews and lessons learned. This enabled the delegates to bring their learning together and reflect on the experience. There was an activity which involved the delegates in conducting a project retrospective and exploration of how any learning would be disseminated.

The subjects covered in the workshops were decided because of the appreciation of project management in the Council, especially the findings of Nelson (2007, p. 74) and The Standish Group (1995, 1999). The 'An introduction to project management' workshop was re-designed to place greater emphasis on benefits management, so that delegates would learn why projects were executed and the importance of identifying the purpose and the cost benefit ratio. In preparing the content for the LPMDP, workshops covering benefits management, stakeholder engagement, project start up, lessons learned, change management, governance and planning were designed using the principles stated earlier. These subjects were chosen based on the earlier extensive review of project delivery within the organisation, as these areas were the ones most in need of improvement.

A key element of the workshops was reflection on activities conducted by the delegates. In a day's workshop, this meant the delegates would reflect three or four times thus turning the reflection into habit which they took back into the workplace.

Throughout the three iterations of this programme it was refined and ideas from Ackoff and Greenberg (2008); De Bono (1976); Jaros and Deakin-Crick (2007); Jensen (2008) as previously discussed in Chapter 2 were utilised. I was very keen to introduce a systemic element to the learning so that the delegates

would gain an appreciation of the systemic nature of projects. This was designed to illustrate how altering one element would have an impact elsewhere within the project, how the projects acted on the organisation and how it is important to engage other staff to achieve the project purpose by drawing on their skills.

Feedback from the three iterations was positive about this element with the delegates feeling they had learned new skills and gained confidence in applying these to the workplace. As the programme iterated we stressed the importance of attendance as during the first iteration attendance was about 50% which then rose to 90% by the third running.

C.1.3 The learning labs

The second element of the development programme were the learning labs and these half day sessions followed the full day workshops and were deliberately of a slower pace with an emphasis on reflection. They were also designed to test and reinforce the learning from the workshops and to introduce other subjects such as financial monitoring and risk which weren't covered in the workshops however they are nonetheless extremely important. Financial monitoring for the larger projects over £1 million would be carried out by a member of the finance team.

So, whilst the project manager wasn't responsible for financial monitoring I strongly felt that they needed to understand what was involved and to ensure they would know if their project was forecast to overrun or exceed its tolerances. Risk was deliberately excluded from the development programme simply because there was already a workshop being run by the corporate risk team so delegates were encouraged to attend this workshop and this ensured there was no duplication of effort. The learning labs were flexible however they were intended to be reflective sessions when the new ideas could take root

'…best ideas… - when your brain is relaxed and wandering...' (Duggan, 2010, p. 3).

The idea behind the learning labs was for a more reflective session with quizzes of the learning from the previous workshops and exchange of experience and a less frenetic pace than the workshops. These were deliberately more ad hoc giving the chance to deal with issues that arose from the workshops; i.e. during the first iteration there was a serious issue involving two delegates with allegations of bullying being made. Therefore, the learning labs in this iteration were used to develop team working and encourage delegates to recognize others' perceptions and viewpoints.

The learning labs were used as required according to the facilitators' assessment of what was required. In the first iteration, the sessions included work on appropriate and proportionate activity, teamwork, rich pictures, mind mapping, and the behaviours of good project managers. The second and third iterations saw a more formal format and each session was started with a set of 20 questions to test understanding, and ensured that the interrelationships, interdependencies and interconnectedness of the activities were made explicit. Other subjects covered in these sessions included risk management, project finances, rich pictures and further benefits mapping exercises. This alteration in formality was in direct response to delegates' feedback. The delegates consistently challenged the purpose of the learning labs and found the unstructured, freeform style uncomfortable. These events consistently received the poorest feedback and attendance from the delegates and any future iteration will instead utilise action learning sets. The feedback suggested that the sessions lacked focus and clarity however there was always an element of planting seeds and hoping the delegates would develop more as reflective practitioners.

Throughout the workshops and the learning labs there was deliberately no emphasis on tools and techniques. The development programme was not designed as a way of training staff in the use of specific tools and techniques rather that they gain a mastery of the activities required to execute their projects. This approach didn't exclude an introduction to methods or processes which assisted in understanding the activities needed. Delegates were introduced to a basic model which could be applied to most activities of projects using 'identify, assess, evaluate, action, monitor' iterated as needed throughout. There was emphasis on the fact that these activities were not one-shot and had to be repeated throughout the project life. We also emphasised that the activities should not be done by the project manager in isolation but needed to involve their teams and indeed other knowledgeable staff within the organisation. In this way, the concept of collaborative activity was explored and experimented with.

This established that project managers are not expected to know all the answers and that the management of projects is a collaborative endeavour. One of the main reasons that throughout the development programme delegates worked in teams and collaborated was to emphasise the importance of this concept of collaboration as a fundamental part of project activities and to build that ethos into project staff. Also throughout the whole of the activities of the development programme there was an emphasis on developing personal skills and competencies such as negotiation, influence, leadership, and other people skills which are so important in delivering projects which so many training courses and even university degrees ignore.

C.1.4 Tutorials

My experience during my Master's degree and as a PhD candidate has led me to value one to one sessions where I can explore and exchange ideas; thinking

aloud in a safe non-judgemental environment and reaping the benefit of another's knowledge and experience. Consequently, tutorials were designed into the programme and meetings set up twice or thrice during the programme for all delegates. The tutors were the programme facilitators and these sessions were used to give the delegates feedback on their written assignments as well more general discussions. These tutorials also helped the facilitators in their own learning about the subject matter and generally received good feedback being attended by 65% of the delegates across the three iterations.

C.1.5 Written work

Throughout the iterations all the delegates were expected to produce a learning contract stating where they considered themselves to be in terms of project management knowledge, where they wanted to be, what they expected from the programme and the benefits they expected to realise. This was followed up with a reflective report following completion of the programme. We did not chase the delegates if this activity was not carried out although the importance of this work to the delegates was stressed in all iterations. Where produced the reflective report was reviewed and feedback given to the delegates. In the third iteration the delegates produced an action plan showing how they intended to apply their learning in the work place. These action plans were reviewed after three and twelve months following programme completion. This involved my meeting with the delegate and their line manager to discuss the implementation and the progress.

The second and third iterations involved the delegates in producing reflective reports based on the learning. The marking was fail, pass or merit and referencing of texts was expected. This activity was intended to reinforce the learning and provide an opportunity to put reflection into practice (Schön, 1983).

A set of indicators were produced and issued to the delegates to assist in this written work.

C.1.6 Live or virtual project

Another key activity of the cohorts was to manage a project either a live project or if a live project wasn't available then a virtual project. This activity enabled the delegates in their teams to put into practice what they had learned and to experiment in a safe environment, a sandbox where they could apply their learning, reflect on what happened when the learning was applied so they were also starting to reflect on action as well as in action.

This activity gave the delegates a feel for the reality of projects, which are often complex and chaotic (Kurtz & Snowden, 2003) due to the unknowns and unknowables. For some delegates, this reality was a major shock however the benefit of front loading project activities was revealed. This provided an experiential element to the development programme.

C.1.7 Mentors

Each delegate throughout the programmes was assigned mentors who were drawn from established project managers and other more senior managers for the first two iterations. For the third iteration delegates from the second iteration were also used as mentors to help them clarify and continue their own learning journeys. Apart from assigning mentors there was no further involvement and it was up to each delegate to arrange as required. Surprisingly none maintained regular meetings with their mentor and some didn't have any meetings. This I feel was a lost opportunity; especially as I mentored a delegate from the second iteration on her first project leading to good project performance.

Feedback was poor with some delegates stating a more formal approach with meetings pre-booked would have been more useful. This is extremely disappointing as I was keen for the delegates to take responsibility for their learning activities rather than they be arranged for them. The ethos of the programme was for the delegates to progress from training/teaching environments to learning ones where they became accountable for their learning and became pro-active in seeking learning opportunities. Post programme interviews suggest that delegates were however pro-active in seeking further learning activities and applying the principles covered on the programme.

C.2 Content design

The appreciative inquiry suggested that the reasons for poor project performance in the subject organisation were due to

1. Planning issues, this included poor and incomplete planning as well as non-existent planning i.e. ‘let's get on with it’
2. Stakeholder engagement issues, stakeholders were often not recognized and their impact minimised.
3. Benefits management issues, this as a concept was practically non-existent so no mechanism existed to identify let alone measure benefits and return on investment.
4. Lack of clarity around purpose, this manifested as too much emphasis on who and what rather than why?

This reasoning was supported by the findings, discussed in Chapter 4 section 4.3.2 page 179, of The Standish Group, (2009), and Nelson (2005, 2007) who also reported these as among the main reasons for project failure; however,

there is no consideration of the reasons for these first order causes. There is no discussion about the deeper causes such as why is planning poor? This seems to be a major oversight and leads to solutions to improve project performance which all too often exacerbates the issue. The workshops covered planning, benefits management, stakeholder engagement, change management, getting a project started, project governance in the organisation and project retrospectives with lessons learned. These were the main subjects and the delegates discussed these topics and the barriers that existed to help them gain a deep understanding giving the delegates the confidence to adapt to the changing scenarios within the workplace and the projects they would be managing.

C.3 Method of delivery

The method of delivery moved away from the traditional model for project management education and that used within the subject organisation for all learning and development activities which was that of training with a prescribed syllabus. Training and teaching are fundamentally transmissive in nature and deal with historic events. These were replaced with elicitation and learning (Ackoff & Greenberg, 2008).

Ojiako, Ashleigh, Chipulu, and Maguire (2011, p. 268) state

> *'Rather than instructors having the authority to transmit knowledge (Long and Holeton, 2009) educators need to become coaches and facilitators of learning. Consistent with both transformational and social learning theories, educators need to facilitate students studying project management to become creators of knowledge rather than simple knowledge recipients. Such demands require an emphasis on broader learning experiences.'*

My co-facilitator and myself did not brain dump our knowledge or attempt to train our delegates in our concept of the ‘best’ way to deliver projects. This required we let go control and no longer transmitted knowledge leading to a system that was more transformative (Sterling, 2001, p. 11) with questions being posed and the delegates working in groups to discuss, e.g. ‘why deliver projects?’, ‘why have an approval process?’, ‘what prevents robust planning?’ These questions formed the early part of the workshops and helped build the theory behind the activities being studied.

These theory and knowledge building activities took place in the mornings and the afternoons consisted of exercises and tasks designed to apply the learning in a practical way (Jensen, 2008, p. 147 & 162). Examples of these activities are: a business case exercise using De Bono's six Thinking hats, and identifying the benefits of replacing two old boilers at a school, see Figure B1.7

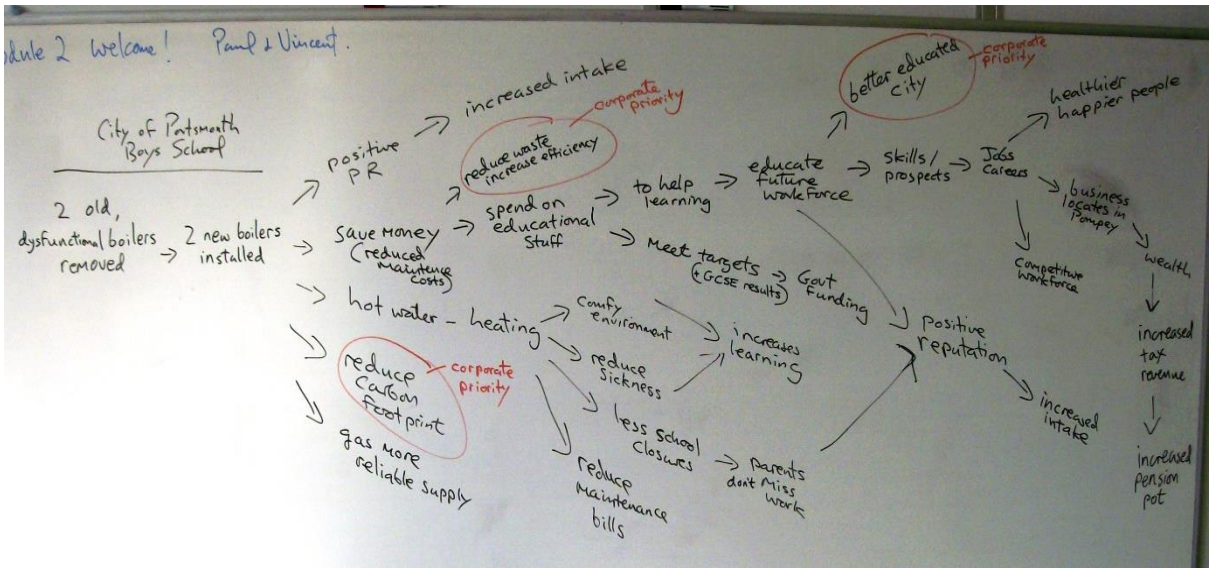


Figure C.3 Benefits of replacing two boilers at a school. (Authors work)

I believe it important to create staff who can think critically, challenge and ask why, rather than simply react according to a pre-defined historically based method. To achieve this several active learning activities were introduced, e.g. delegates were given pre-workshop research to carry out. As an example, before the planning workshop the cohorts were divided into two with one group researching work based structure and network charts and the other product based planning. Each group then spent time explaining these techniques to the other group. Other activities such as reverse brain storming were used so that the delegates in their groups would discuss what would happen if planning was poor or non-existent, this was then shared with the rest of the cohort.

The delivery was built around collaborative exercises and the delegates discussed various questions designed to build their understanding. These discussions were presented to the wider group and further discussions ensued. The nature of a no training no teaching environment meant the facilitators had no control over the direction and content of the discussions. One of these discussions questioned the ethics of influencing stakeholders to accept the project's requirements, an interesting and unexpected direction of inquiry. Over the last two cohorts four learning and development officers attended the programme and it was clear that they struggled with the loss of control this format presented. Only one of four became involved in facilitating future iterations, although one did move into a project manager role in another service.

A great deal of learning and development work within the organisation presented a ‘correct’ way to act. Concurrent with the third iteration a Leading and Management Programme was running aimed at mangers within the organisation. This was a more traditional teaching programme with strong emphasis on Kotter's approach to change management and the use of the Influencer and Crucial Conversations courses from Vital Smarts®. These were presented as the *‘correct’* way to carry out a change transformation and whilst

useful they are not definitive. This approach was also the antithesis of my approach which was to be method agnostic and to help the delegates understand the underlying ideas and principles without a prescription as to the *'best'* way.

The facilitators on the LPMDP were encouraged to be transformative rather than transmissive although my colleagues stated in interviews they had found it difficult on occasions to let go control in this way. Building on the review in Chapter 2 Sterling (2001, p. 11) suggests that facilitators be transformative rather than transmissive stating *'The real need is to change from transmissive towards transformative learning.'*

All the learning and development workshops were designed to be transformative and over the iterations emphasis was placed on

> *'Creating learning environments that promote active learning, critical thinking, collaborative learning, and knowledge creation.'* (Long & Holeton, 2009).

To support this transformative approach, the use of PowerPoint slides was minimal in the first two iterations and by the third iteration not used at all. Potential delegates were informed of this approach at the open days for potential delegates to enrol and again in the first session of the LPMDP. Consequently, several potential delegates decided the programme was not for them so didn't apply. Two delegates who started left after the first introductory session. As evidenced by the data presented in Chapter 6 and Appendix D the delegates who completed the programme spoke very favourably of this approach and some applied it in their learning and development activities with their own staff.

The approach was one of competency based educating with an emphasis on the delegates gaining a mastery of the subject and the activities so that they would become adaptive and capable of improvisation. To achieve this, the workshops were question and discussion based to establish why, how, what, when and who of the various activities which contribute to successful commissioning and execution of projects. This elicited information was applied using simulations and case studies to embed the new knowledge. Delegates also assisted in delivering elements on projects to further practice and embed the new skills.

All the workshops included exercises based on eliciting information from the delegates, thus exploring the subject, and a variety of exercises which enabled experimentation in applying and gaining new learning. All the workshops throughout this element were designed so that the delegates would gain an understanding of the subject rather than be told the *"right way"* to deliver a project. Each workshop had three intended learning outcomes as did the programmes and the content delivered to meet these outcomes. In all workshops, the delegates were split into groups of around 5 - 6 to enable all to participate in the discussions and encourage group learning. The workshop room was laid out in cabaret style, allowing the facilitators space to move around and encourage the delegates in the exercises undertaken. Figure C.4 shows a photograph of the layout.

Figure C.4 Cabaret style layout of workshop room. (Authors work)

These exercises were designed so that delegates working in groups discussed certain questions and information elicited. For example, *'Why do we deliver projects?'* I was especially keen that the workshops were not brain dumps with the facilitators dumping information onto the delegates. This did mean delegates' expectations needed to be managed and they were encouraged to become more reflective in their thinking rather than simply being receivers of information from the facilitators.

All exercises were followed by a period of reflection and then a discussion of what went well, what would be changed and what would be done differently next time. The delegates were also encouraged to consider how they felt with the exercises and how their own behaviour contributed to the outcomes. The final 15 minutes of each workshop also had a reflective period built in and this reflection was designed into all the learning activities. This allowed for the 'spaced repetition' as discussed in section 5.3.2 earlier. In this way reflection on

practice was developed and became a habit which the data demonstrates was carried forward into their work.

This no teaching style was a departure from the usual method used in the organisation and the feedback (LPMDP Delegates, 2010, 2011) after the programme suggested that some delegates found it difficult to cope with this approach. In designing the learning activities the Triple E was applied.

C.4 Reflective practice

Throughout the three iterations my colleague and myself immediately after each activity reflected upon the event considering what went well, what hadn't gone so well and how we could improve for the future. These reflections did consider whether the no training no teaching approach was appropriate and meeting the requirements of the organisation in improving project performance, especially during the first iteration when the delegates seemed to have trouble in staying the course and with the approach. In the second iteration, this approach began to produce good results with one delegate stating he had successfully challenged his manager over a project in terms of its purpose. From interviews held with delegates this approach was welcomed and the delegates felt they benefitted from the approach and a number reported that they have continued their learning journeys because of the attendance on the programme.

In these reflective activities, initially I and latterly my colleague brought new ideas from our readings to the discussions in developing a better learning experience for the delegates. In this way, the programme evolved and the concepts from Jensen and Deakin Crick were introduced.

It is also important to consume your own product; as facilitators, we reflected throughout and great emphasis placed on reflective practice during the

programme for the delegates. The importance of the practice of and benefit of reflection was continually emphasised. The delegates were encouraged to reflect on their learning activities and the written assignments were intended to help them put this into practice.

The project managers' development programme was first run in October 2009 as a 'Pilot and design' course, there then followed two further iterations with a total of 61 delegates commencing with 52 completing the programme.
As well as attending the workshops and learning labs, and participating in the virtual project, learners were expected to

1. drive their own learning in a spirit of enquiry, experimentation and reflection
2. produce a learning contract, two written assignments and an evaluative essay at the end of the programme
3. attend 1:1 tutorials with a course tutor to review written assignments, learning and progress generally on the programme
4. present information and facilitate discussions at the workshops and learning labs

The delegates were also provided with a mentor in the form of a more senior member of staff from the project community, although not necessarily a project manager. As the programme progressed so mentors were drawn from the ranks of delegates who had completed the programme.

In the second iteration, a 360° appraisal was introduced at the first workshop and delegates invited to appraise their peers and the facilitators against behaviours which they had identified as being appropriate for good project managers in an introduction to the programme session. Feedback on this tool was that it needed to be more balanced *"Balance – all good, need negative*

feedback as well" (LPMDP Delegates, 2011), the tool was deliberately designed to accentuate positive behaviours.

The feedback from delegates of the first workshops was acquired using 'happy sheets' and a meeting facilitated by a member of the Learning and Development staff, although no attempt was made at obtaining feedback from line managers of delegates to assess any impact in the workplace following attendance.

The first iteration of the LPMDP involved eight delegates two of whom did not finish the programme. This was due to work pressure in the main although there was no formal exit interview apart from the first drop out who had to act up following his line manager's promotion. The second iteration was intended to be limited to eight however we received 24 applications which whittled down to 20 contenders with line manager approval, a condition of acceptance. The organisation's Learning and Development manager decided that they could release their facilitator for two parallel cohorts and I also made the space to co-facilitate. This gave a total of 20 delegates which were split into two cohorts although for some workshops and review sessions the two cohorts were brought together. This was to reduce the staffing load and was a planned change. However, I recognised that some other benefits might emerge from this joining e.g. collaboration between the two cohorts rather than competition and increased opportunities to share experiences. During this second iteration a total of six delegates dropped out.

The third iteration took place from October 2011 till June 2012 with a total of 33 delegates starting with one failing to complete. In both second and third iterations, the delegates were asked to produce a reflective report on conclusion of the programme and a number did so. Additionally, the third group delegates produced action plans to continue their development. These action plans were

discussed with the delegate, their line manager and myself and reviewed after six months to assess progress.
This Appendix gives a full description of the various activities carried out to dissolve the problem of poor project performance, Chapter 6 provides evidence of the success of this intervention.

Appendix D Results and how collected

D.1 Overview

The following sections detail the data collected and how these data were collected. There was a business problem to address and consequently other improvements in effectiveness which resulted in cost savings however obtaining actual figures was not possible and estimates based on the Portfolio, Programme and Project Offices manual from the OGC were adapted. These were calculated as savings of around £2 million per annum. There was also a total of £4.2 million saved within the first six months of the introduction of the new model due to a project being stopped. Data was also collected from interviews and reflective reports evidencing improvements in confidence and behaviour change.

D.1.1 How results were obtained

The following sections detail how the results were obtained.

D.1.1.1 Delegate demographics

The demographic data of the three cohorts was obtained using an online survey through SurveyGizmo.com. This was compared with the demographic data of the Council produced by the Human Resources Service.

D.1.1.2 Interviews

All the delegates and facilitators of cohorts 2 and 3 were invited to an interview following their completion of the programme, a total of 43 invites. A total of 18 delegates agreed to be interviewed with both my co-facilitators also agreeing to an interview. A further five from the first tranche agreed to a second interview and Table D.1 below shows the numbers and timings of the interviewees and interviews.

Type	Number 6 weeks after completion	Number 12 months after completion	Second interview 2 years after completion
Delegate	6	12	5
Facilitator	1		
Facilitator & delegate		1	
Total	7	13	5

Table D.1 Type of interviewee and time scale after completion of programme.

A total of 25 semi-structured interviews were conducted and as is shown in Table D.1 these were carried out at various time intervals after completion of the programme. The second interviews were conducted with the delegates who had previously been interviewed six weeks after completion. The exception being a delegate who in the interim period had left the Council. The transcriptions were analysed using Atlas.Ti software.

D.1.1.3 Reflective reports

The delegates of the second and third iteration of the LPMDP were requested as part of their learning to produce a reflective report on the programme and what they had learned. A total of 26 were produced and analysed using Atlas.Ti software. This equated to 50% of the total delegates.

D.1.1.4 Business metrics.

Certain business metrics were recorded each year from 2007 till 2012 however a full set to include percentage completion on time, percentage completion to cost budget, cost benefit ratio, engagement in the Corporate Project Board by political group leaders, meeting corporate priorities and improved reputation was not obtained until 2010. This was mainly due to the evolving nature of monitoring especially the full use of project evaluation plans which was some years into the implementation. These metrics are only for the projects which were subject to approval by the Corporate Project Board. Within and across the organisation many more projects were commissioned and executed.

It will be noted that some of these metrics are the historic ones of meeting time and cost budgets; these budgets were used as performance indicators in my model rather than objectives which traditional project management proposes.

These metrics were measured initially to meet stakeholder expectations and then, as data was interpreted, to provide evidence that moving the focus from cost and time improved performance in remaining within these budget constraints.

The metrics involving time and cost constraints were measured in similar ways. The number of projects completed within time or cost budgets was divided by the total number of projects then expressed as a percentage. Cost-Benefit Ratio involved calculating the value of the business benefits divided by the total cost expressed as a ratio; so, 3:1 was latterly required as a criterion for approval to commence a project.

The measurement of engagement in the corporate project board by the political group leaders was determined by their attendance and additionally an observation of their questions which was indicative of their preparation and reading of project documents. Projects were assessed on their alignment and contribution to the corporate objectives as part of the portfolio element and a main role of the corporate project board was to ensure that projects were meeting the members' objectives.

The reputation of the Council was determined by the quantity and frequency of articles and letters in the local daily newspaper. This is not an absolute determinant of reputation however it is an indicator of how the Council's project performance was perceived to have improved. As stated in Chapter 1 the Council was subject to annual review by the Audit Commission and these took place in 2008 and 2009.

Project maturity was also assessed using an industry standard tool, firstly in June 2007 during the review by KPMG and secondly in September 2010. These were both assessed by staff within the Council and so do not have external

verification, nonetheless the two assessments do provide further evidence of a perceived improvement in project performance.

D.1.2 Results

D.1.2.1 LPMDP Delegate demographics

The demographics of the LPMDP delegates were collected and compared with the Council. The following tables present these results.

Value	Count	Percent	PCC
18-24	3	4.9%	7%
25-34	23	37.7%	20%
35-44	30	49.2%	26%
45-54	5	8.2%	27%
55+	0	0.0%	20%
Total	**61**		

Table D.2 Age of LPMDP delegates compared with organisation.

Qualification

Value	Count	Percent	PCC
GCSE	3	4.9%	17.26%
A-levels	1	1.6%	18.43%
Foundation degree	5	8.2%	12.67%
Bachelor's degree	31	50.8%	25.72%
Master's degree	8	13.1%	13.65%
Doctorate	1	1.6%	2.13%
Other qualification	12	19.7%	10.14%
Total	**61**		

Table D.3 Qualification of LPMDP delegates compared with organisation.

LPMDP			PCC	DNC	DNC %
Female	42	68.80%	64%	8	19.05%
Male	19	31.20%	36%	2	10.53%
Total	**61**			**10**	

Table D.4 Gender mix of LPMDP delegates compared with Council

D.1.2.2 LPMDP Interviews

The interviews were semi-structured with open-ended questions allowing the delegates an opportunity to express their experience of the programme. The first tranche of six delegates and one facilitator had the following as their questions which were intended to open discussion:

1. Which of your behaviours do you feel have changed as a result of your involvement in the LPMDP?
2. What have you learned as a result of your involvement in the LPMDP?
3. Which experience within the LPMDP do you feel contributed the most to any learning you have identified?

The questions were slightly different for the second tranche as follows:

1. How have you used the learning, if any, from the programme?
2. Has the programme benefitted you in the workplace and/or your personal life? If so how?
3. How did find the experience of the programme?
4. Has the programme had any impact on you?

The findings from the interviews are grouped into three themes which I considered the most relevant from my perspective, being confidence, behaviour change, and sustained learning, which are analysed in the following sections. All the interviewees indicated that confidence gain was the biggest impact on them because of the programme. This reported confidence gain led to behaviour change.

D.1.2.2.1 Confidence

The main gain reported by all delegates was in improved confidence which impacted their behaviours and work in the workplace. A significant number, 64% of those known for certain, gained new positions; some within the Council and others outside. Whilst the percentage of the Council's staff changing role is unknown it is unlikely to be as high as the 64% of delegates from the LPMDP. The very fact of applying for this programme indicates a desire to develop and improve, which will be a factor in the high number of role changers. As interviewee 8 stated;

> *'I definitely feel, and it's an absolute bonus for me, more confident, hence going for a promotion actually.'*

and in further confirmation of improved confidence

> *'I think the biggest thing for me though is the confidence.'*

Interviewees 3 and 7 both identified increased confidence with the following statements;

> *'Changing face-to-face courses to e-learning courses and I'm challenging whether we're doing it simply because we can rather than for the benefit of the delegates.'* Interviewee 7.

> *'The thing is, it's been a really great experience for me doing the programme. It's been one of the best kinds of professional experiences I think.'*
> *'When I think of my competencies, say 5 years ago I would say that's a change and I think it's come about with a greater confidence in the subject matter as well as a willingness to let it go into areas where I might not have the answers necessarily but because I've got a greater confidence in the subject generally it's not been scary.'* Interviewee 3.

This was a belief echoed throughout the interviews as the following evidences;

> *'So, that has helped a lot, and I've got to say one of the biggest things I took from the course was the confidence to be able to do …'*
> *'And the course did definitely kind of urge me into and make it a lot more confident for me to let go of the reins and let the team do what the team should be doing rather than me trying to bull my way through it and keep hold of every string I possibly can.'* Interviewee 4

> *'…greater confidence about new skills, new tools so stuff around the benefits management.'* Interviewee 5

Further examples from the interviews are as follows;

> *'I'm looking for more opportunities to get involved in things that are project related and definitely, I don't know I would even have put myself forward for the transformation staff had it happened 12 months ago so kind of using opportunities to use the knowledge.'* Interviewee 11

And as a final example

> *'I'm certainly more confident that I understand the expectations of PCC in terms of project management, not necessarily PCC what the general view is on what is good project management and what is bad project management.'* Interviewee 12

Further examples of increased confidence in action were provided by two of the interviewees both of whom successfully questioned 'why?' The first example occurred during the programme when a delegate was requested to implement a

project. On reviewing the project, he questioned the purpose of the project and stated that there were no benefits to the Council in commissioning the project. This project was shelved saving the Council approximately £30,000 and damage to its reputation amongst partner Local Authorities. The project would also have diluted the money to be distributed from £1M to £300,000.

In a second case, another participant in the programme challenged the purpose of two events which had been organised annually for many years, these events were stopped saving £25,000 per annum.

In both cases the delegates state that attendance on the programme gave them the confidence and understanding to question the purpose of the project. The concept of project purpose was an underlying principle throughout the LPMDP and the whole model I introduced.

D.1.2.2.2 Behaviour change

The LPMDP was designed with an intention of changing the delegates behaviours so that the improved project performance would be maintained and continuously improved. The approach was that of active learning using the Triple E model shown in Figure 1.8. Part of this concept was the introduction of reflective practice to the delegates, including those who attended the single workshops as well as the LPMDP delegates.

Interviewee 7, who was interviewed around two years after attending the LPMDP, identified his behaviour change with the following;

> *'And I've actually gone into other training that I deliver with that kind of approach in attitude to cut down the amount of PowerPoints that I use.'*

'Planning and understanding consequences of the actions is something which I have used in both my work and home life. Not sticking to something I may need to do something a bit different to get the goal I'm aiming for.'
'The benefits module helped enormously and it was not something that I and other delegates had particularly thought of before and now if I'm planning anything I consider what the benefit of it is.'

This interviewee also felt that behaviour change was visible in other delegates stating;

'You could physically see some of the lightbulb moments occurring. To actually see someone, develop and change their behaviour over a period of time is very satisfying. It is a good to see that people have moved on from doing the programmes and are now working on some corporate projects.'

Whereas interviewee 3 felt that

'…so, I've really enjoyed the whole programme design bit. Really enjoyed that and obviously doing that in collaboration with you as well, it's been very enjoyable. It wouldn't be so enjoyable on my own so it's been great. And I think there's been real growth for me in those areas.'

Interviewee 1 stated that improving soft skills was a prime reason for enrolling into the programme;

'Okay one of the reasons that I signed up to the programme as well as general personal development was that I am conscious that I can come across as a very abrupt person. I'm very driven, I'm very focused on where I want to get to and when I want to get there and I miss out on the soft elements. So that was something I was really looking to get from the course as well as doing other things to generate those behaviours more within myself at the same time so that I think that that's something that in the last 6 to 9 months, I've come on leaps and bounds…'

'…I do feel while I still have to make a conscious effort, those softer skills are a little more easy for me to come by.'

'That's probably the main behavioural change although it's a very big behavioural change I think.'

These sections also suggest that this interviewee has reflected on the learning and how that impacted their behaviours. Interviewee 2 in the second interview made the following statements;

'Making you think about things in a different way.' and
'It was great to use your brain in a different way really.'

In the first interview, the same interviewee had stated;

'…actually, more insightful, more aware and more able to ask the questions I feel confident talking about project management.'

In many cases the interviewees stated that the programme had encouraged them to reflect more on their actions and consequently make their understanding of project activities more explicit, for as interviewee 19 stated;

'I've always liked the bigger picture, I think that's possibly me though, maybe the course gave me the confidence to do that more yes the ability to do that more. I think that was always inherent in me.'

And a final comment from an interviewee in this case number 15;

*'*I've *certainly seen some development changing myself and attitude change, I'm more open to changing now.'*

As discussed in the section above the delegates felt that their behaviour change was largely due to their confidence increase. There is little doubt that the two examples of questioning the purpose of an activity derived from behavioural change driven by increased confidence gained as a direct result of attendance the development programme.

D.1.2.2.3 Sustained learning

The other major finding from analysis of the interviews, which apart from the initial seven conducted within six weeks of completion of the programme, suggested that the delegates felt the learning gained from the programme was being applied some 12 and 24 months following completion of the programme. Again. this finding was tested firstly by asking for examples of how the learning was being used in the workplace and secondly by discussion with the delegates line managers. Interviewee 14 stated the following;

> *'I think I, since the end of the programme I think I've probably used ninety-five percent of what I learnt in that classroom, not having had any sort of formal or informal training on project management before. The big, one of the big things that the course did do for me is help me to appreciate the skills I had from other areas, and other employments that I would never have guessed would've been related to the skills of project management. It kind of highlighted those transparent skills and … maybe taken in a different context but not much different to how I've used those types of skills before and it was a real eye opener and when I first came into the course I was a bit daunted so to speak with not having any project management experience or training.'* And

> *'Things clicked later on when other bits of conversation were brought into kind of explain things and kind of led, it felt we were kind of led to our own conclusion about it rather than just like on most training courses you're told A equals 2, B equals 3 and so on. So, I definitely thought that the way that things were put across to kind of bring out our own thoughts and methods and the way that there was no necessarily wrong answer but the answers were up for discussion on all levels and on most of them there wasn't a right or wrong answer. I think another thing that I've learnt was that there isn't always one way to do something and that way's not always the right way but it's not always the wrong way, I think it depends on the project, the project team, the people in that team and the person that's managing it on the skills that they have and what kind of models and modes they have to put themselves into achieve something. So, I think that definitely, definitely helped.'*

> *'…five events came to, happened and they all went through smoothly. In previous years there'd always been a panic stage, there was no real panic, food festival, I think [line manager] noticed that the food festival was nice and calm and relaxed, the weeks leading up to it everything was getting done as it needed to be, everything was in place and it created I think a more relaxed environment.'* Interviewee 5

And a comment from the same interviewee about five projects he had executed;

> *'But then by front loading loads of it and getting those contacts and the communication channels in place so everyone knew what was expected, how we were going to, or how I was running the event and what I needed to be done at what stages, they went effectively seamlessly. I got to the stage where I was thinking well I must've missed something, it can't be doing this smoothly, what have I missed out, what have I omitted, and I hadn't it was just I was doing things in advance rather than just juggling them more in a haphazard way that I used to do things, it's probably a bit more structured now I think and just buys so much time.'*

Interviewee 6 became a strong advocate for benefits management in his own work area and I facilitated several workshops for his work colleagues, in response to a question about using the learning this was his response;

> *'Okay. Yeah, the main thing I've learned and taken away from it would be around benefits management, so all the other kind of modules such as stakeholder engagement, lessons learned and the other events I was kind of more aware of and I'd been using in my role and previous roles, but in terms of benefits management that the main thing I would say I've taken away from the programme and I've been able to use this approach within the services that we commission.'*

This delegate introduced to his work area a radical new approach to commissioning contracts whereby the emphasis was on achieving benefits rather than purely outputs. In so doing he met one of my intentions in the education programs which was for the delegates to 'infect' other members of the organisation with this new approach.

These snippets from various interviews support my contentions however reading these on paper does not convey the enthusiasm and passion of the staff, interviewed, for both projects and their new-found learning, for as interviewee 6 stated;

> *'I enjoyed kind of shared learning of it, so it was a good kind of collaborative learning which I liked, I also liked that it wasn't that kind of traditional school of kind of teaching where you just kind of get talked at and hopefully a percentage of what's talked sticks, so it was good in that, in that, in that sense.'*

Interviewee 5 also added the programme had rekindled a desire for learning as stated here;

> *'Yes, definitely in the work life I'd say, its helping me become more structured it's not waving a magic wand overnight and everything's falling into place but it's, it's pointing me in the right direction. It's kind of maybe started not a fire but it's rekindled an earlier desire to sort of learn a bit more, I think there's always a danger where you become sedentary in you plod along or you reach a plateau and isn't this a happy plateau but it's easier sometimes just to keep, I'll go to work and that's it. But it was nice having something different, a different focus, something that was a new challenge and yeah, the aspect of even sort of studying or learning again, I'm not talking about going back and doing a degree or anything for myself at the moment with a young child it's not the right environment for me at the moment, but yeah even looking at things like just some self-study, we've broached it in my PDR…'*

Whilst the LPMDP itself had only 52 delegates who completed the programme the other stand-alone workshops, which also took an active learning approach, explored the idea that the purpose of projects is to deliver benefits and around 350 members of staff attended these workshops.

D.1.2.3 LPMDP reflective reports

A total of 26 delegates from the second and third iterations of the LPMDP completed reflective reports and the following figure and table show the learning as identified by the delegates through the reflective reports.

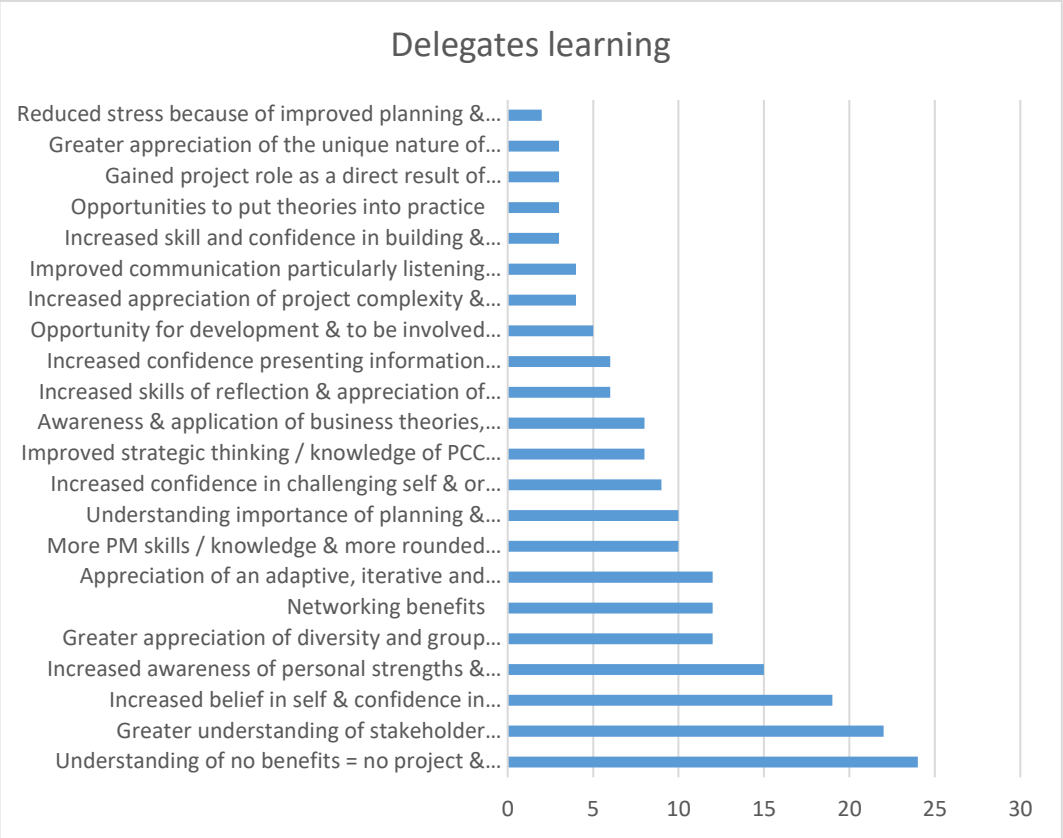


Figure D.1 Learning items by delegate. (Authors work)

Learning	Number
Understanding of no benefits = no project & benefit realisation	24
Greater understanding of stakeholder engagement	22
Increased belief in self & confidence in expressing views	19
Increased awareness of personal strengths & areas of development	15
Greater appreciation of diversity and group intelligence	12
Networking benefits	12
Appreciation of an adaptive, iterative and flexible approach to PM	12
More PM skills / knowledge & more rounded approach to pm practice	10
Understanding importance of planning & frontloading projects	10
Increased confidence in challenging self & or others' assumptions	9
Improved strategic thinking / knowledge of PCC & big picture	8
Awareness & application of business theories, tools and models	8
Increased skills of reflection & appreciation of learning lessons	6
Increased confidence presenting information verbally & or in writing	6
Opportunity for development & to be involved in future PCC projects	5
Increased appreciation of project complexity & ambiguity	4
Improved communication particularly listening skills	4
Increased skill and confidence in building & making a business case	3
Opportunities to put theories into practice	3
Gained project role as a direct result of attending the LPMDP	3
Greater appreciation of the unique nature of projects	3
Reduced stress because of improved planning & organisational skills	2

Table D.5 Learning items identified by delegates. (Authors work)

From the above it will be seen that benefit realisation and stakeholder engagement were the biggest learning outcomes. Increased confidence appears four times in the listings evidencing a strong change in the delegates, and confirming the findings from the interviews. An increase in reflection skills is mentioned by six delegates however several other outcomes are indicative of reflective thinking, e.g. *'Increased belief in self & confidence in expressing*

views' and *'Increased awareness of personal strengths & areas of development.'*

An analysis of these reports shows that a significant number of the delegates changed their perception of project success following completion of the programme. As writer 1 states;

> *'At the beginning of the course my definition of project success was to deliver a project on time and within budget. However, having gone through the course, I now realise that project success is defined more importantly from the stakeholders' perspective and benefits realisation. Projects are done to deliver benefits and if the benefits for doing the project are not realised the project is a failure even if the project is delivered within time and budget specifications.'*

This is further endorsed by writer 5 who wrote;

> *'A project will be thought success where a team deliver a project with well-defined benefits together. Ideally that this occurs within the expected timescales and budgets however I have learnt that it is more important to define and deliver benefits with stakeholders to a mutually successful conclusion rather than try to meet deadlines and budgets regardless. That it should be planned well, alongside all stakeholders and that depending upon the size and scale of the project there should be a sense of proportionality. A project has no reason for existence if there are no benefits and it does not meet the objectives of the organisation and its strategic aims.'*

The delegates who completed these reflective reports also stated that their confidence and self-belief had increased as the following comments reveal;

> *'The tutors ensured the modules were catered to meet most learning styles so I feel everyone could take away something that could then be adopted in their work. Discussion was encouraged and by making it clear from the beginning that there were no wrong answers made me feel confident in raising any concerns or queries I had along the way.'* Writer 21

'I think the way the tutors made time for tutorials and the elements of assessment gave the programme weight which it might not have had otherwise. This in turn encouraged further commitment from the delegates creating an environment for benefits to be realised. For me this is core as to how learning benefits were enabled – there was genuine self-motivation from delegates and tutors alike, who it was especially clear, saw the value in what they were doing as opposed to being there because they had to be.' Writer 13

'Participation in the virtual project was somewhat daunting at first, working closely with a group of people that I hardly knew in an area that I had very little knowledge of. But I found that as time progressed, and particularly in phase two where I was assigned to the programme group, I was more self-assured about speaking out and was able to participate with confidence.' Writer 7

'When I first embarked on the programme, I was intimidated by my lack of understanding of the subject area, and was reluctant to involve myself during the first couple of class modules and the first phase of the Barrytown project. However, as the programme progressed, I realised that I was familiar with a lot of the teachings, with some exceptions, and my confidence grew. As my confidence grew, I got more heavily involved with the second phase of the Barrytown project, and contributed much more to how the project developed and was much more assertive; something which I am also seeing within my position at the carers centre.' Writer 9

'I have been able to share some of the knowledge I have gained with fellow team members, the use of KETSO for example, and have been able to influence how some projects are perceived and also how some have been planned and mapped and therefore progressed within the team I'm currently in. Attending this course has given me self-belief. Being part of this programme has instilled a confidence that I have the ability to 'do it'. Each module provided an opportunity to confirm and reinforce existing knowledge and skills, which were then built on with new and additional knowledge and skills. As a direct consequence, my aspirations have been raised.' Writer 11

These comments indicate how the increased confidence has led to improved performance within the workplace.

D.1.2.4 Business metrics

This section provides an overview of the findings showing the improvements in effectiveness which resulted in cost savings. Obtaining actual figures was not always possible and estimates based on the P3O manual from the OGC were adapted. These were calculated as savings of the order of £2 million per annum. There was also a total of £4.2 million saved within the first six months of the introduction of the new model due to a project being stopped.

D.1.2.4.1 Project performance measured against cost and time parameters

A significant change to the Council's approach to projects was in redefining projects with a purpose of realising benefits. This required project success to be measured by achievement of those benefits and obtaining an acceptable return on investment. Notwithstanding this change projects utilised time and cost budgets as performance indicators throughout the project. In addition, there needed to be evidence of improvement to satisfy the members and senior management. Constraints are stated in my redefinition and staff; cost and time are usually the biggest constraints in projects. Staff contribute to and should be included in the cost and time constraints. Table D.6 shows the percentage of projects completed against cost and time constraints, whilst Figure D.2 presents this data graphically. Table D.7 shows the actual numbers of projects assessed.

	2007	2008	2009	2010	2011	2012
Cost	15	33	50	56	86	91
Time	20	33	56	63	93	86

Table D.6 Percentage of projects completed within cost and time parameters.

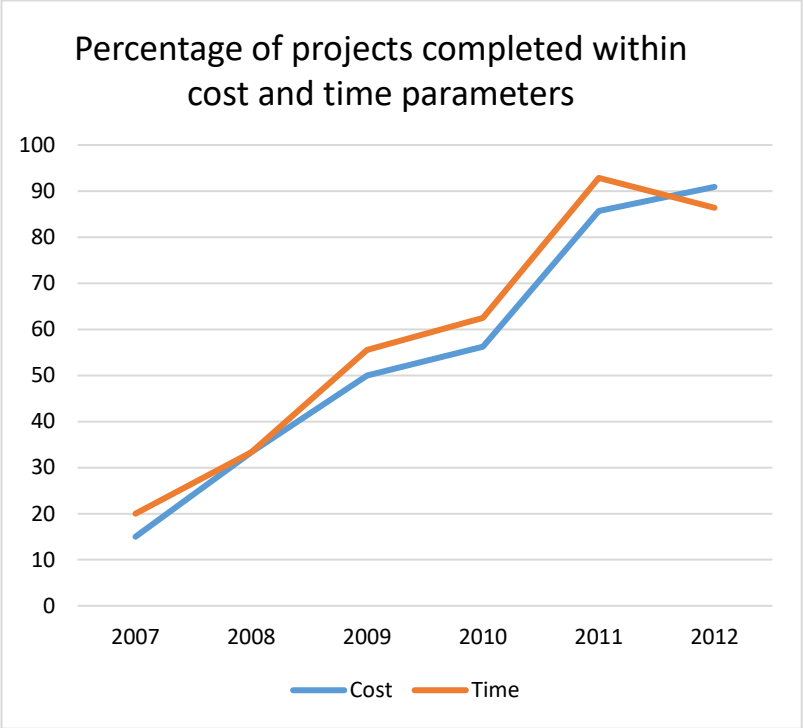


Figure D.2 Graph showing percentage of projects completed within cost and time parameters year on year. (Author's work)

	2007	2008	2009	2010	2011	2012
Project completed to cost	3	4	9	9	12	20
Project completed to time	4	4	10	10	13	19
Project completed	20	12	18	16	14	22

Table D.7 Number of projects completed within cost and time parameters.

From this data and these representations, project performance measured improvements following the LPMDP which commenced in 2009/10 and ran through two further annual iterations. The next table gives the number of projects involved which is limited to the projects which were considered by the Corporate Project Board. There were a significant number of other projects commissioned and executed within the Council over this period however the Corporate Project Board was only concerned with those per the criteria detailed in Appendix B.

This improvement was due to multiple factors which included a redefinition of projects moving the focus from outputs onto benefits as well a change to active learning approaches to develop practitioners amongst others. Financial appraisals were prepared by Financial services and all mandated documents subject to peer reviews. The model introduced peer reviews although financial appraisals were already being conducted by Financial services prior to the intervention. These activities should lead to an improvement in meeting cost budgets so these metrics do not of themselves support my contention regarding project definitions.

D.1.2.4.2 Cost-Benefit ratio

This is an important measure however methods to collect this data were not in place until two years post the commencement of the intervention. There were several reasons for this, lack of maturity in assessing the value of benefits realised, inchoate business cases prior to the portfolio element being introduced, stakeholders initially had more interest in measuring progress against cost and time. Subsequently post output evaluations were introduced and following Department for Transport protocols these were assessed one and five years' post output delivery. The graph displayed in Figure D.3 covers three

years of one-year post output data; there were no five-year post output evaluations that I have been able to access due to my departure from the Council.

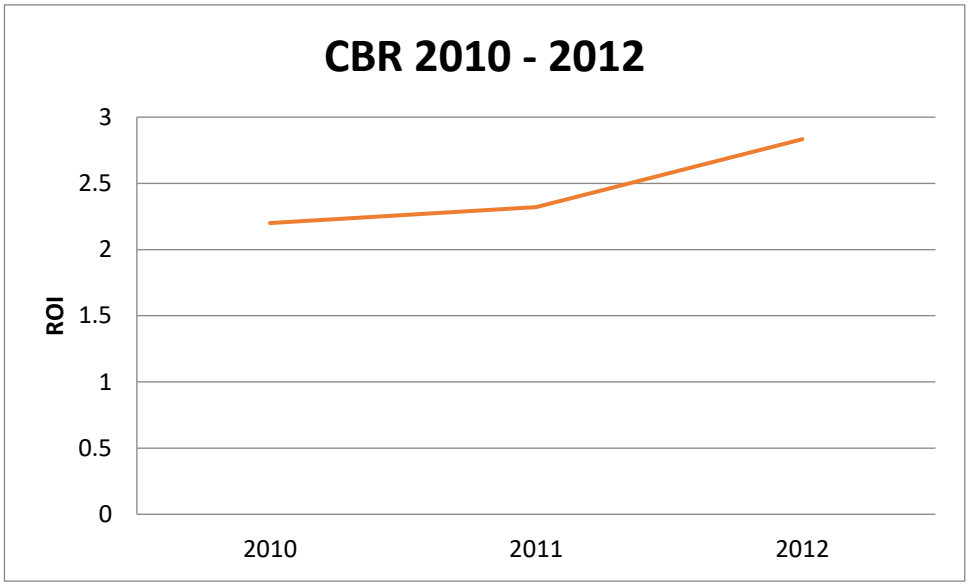


Figure D.3 Graph showing Cost-Benefit ratio measured one-year post output.

The Cost-Benefit ratios are all below an expected 3:1 ratio, however these are the one-year post output data and benefits realisation will continue beyond this period hence the need for five-year post output evaluations. It can be inferred that the Cost Benefit Ratio will improve given the reduction in cost overruns demonstrated in the above section. Table D.8 shows the Cost-Benefit ratio numerically.

Year	2010	2011	2012
CBR	2.2	2.32	2.83

Table D.8 Cost-Benefit ratio on completed projects one-year post output.

There is a clear continuous improvement evidenced here and it can be inferred that this will continue given the improvement in projects completing with cost and time budgets.

D.1.2.4.3 Elected member engagement

This metric was identified in my business case for the implementation of the corporate project management system as it was labelled in 2008. I identified member engagement as a potential benefit of the model and attendance at the corporate project board meetings as a measure.

It is apparent from the graph and table that engagement was high and sustained throughout the lifecycle of the Corporate Project Board.
Figure D.4 shows graphically the attendance by the political groups at the corporate project board meetings.

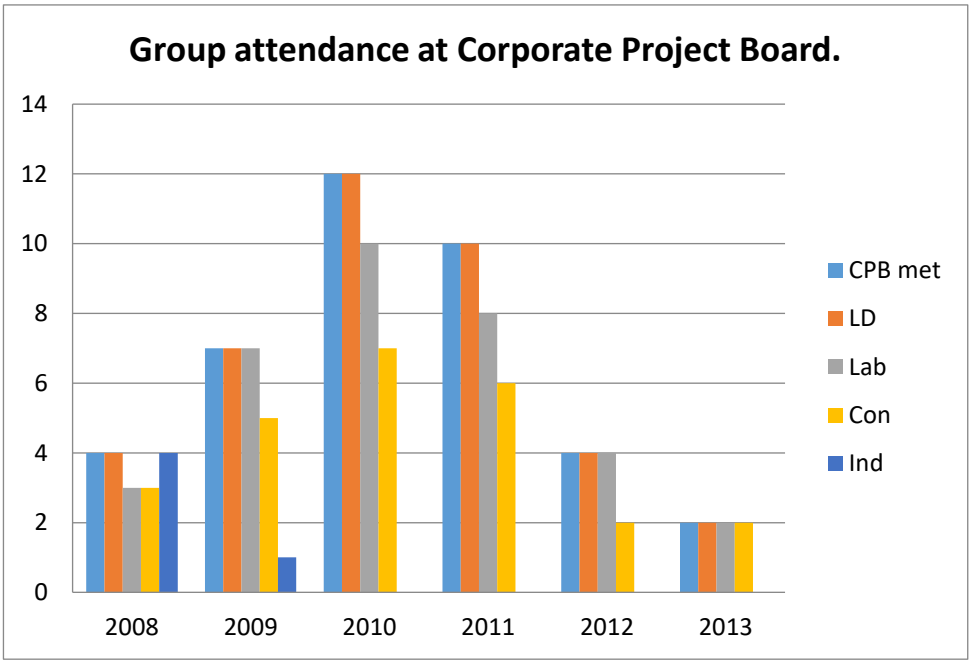


Figure D.4 The attendance by the group leaders at the Corporate Project Board.

The number of times the board met was influenced by the Council's project performance. Through 2008, 2012 and 2013 the board met quarterly, however in 2009 and through to 2011 monthly meetings were arranged. Late in 2011 the board decided project performance had improved sufficiently to revert to quarterly meetings. It will be noted that the Liberal Democrats attended every meeting although it should be noted that they were the group who formed the administration throughout the period under review. Additionally, the Conservative group leaders, of whom there were three throughout this period, were employed full time and struggled to attend. For the years 2009 and 2010 the meetings were arranged for 17:00 to accommodate this however the attendance of the Conservative leader was still around 60%.

In addition to the formally scheduled meetings there were three occasions, affecting two projects, when fortnightly meets were added so that the Leader of the Council could receive updates from the project manager on projects which were experiencing issues. These issues were about contract negotiations. It is interesting to note that the project manager, of the project which was subject to this level of scrutiny twice, had unconditional support from his senior managers; the project director and his line manager.

	2008	2009	2010	2011	2012	2013	Total	%
CPB met	4	7	12	10	4	2	39	
LD	4	7	12	10	4	2	39	100
Lab	3	7	10	8	4	2	34	87
Con	3	5	7	6	2	2	22	65
Ind	4	1	The Impendent members joined the Liberal Democrat party in May 2009					

Table D.9 Group leader attendance at Corporate Project Board.

The first meeting of the Corporate Project Board in March 2008 led to the ward councillors (elected members) being invited to the project boards of projects impacting their wards. This is also member engagement however, this was not monitored and my observation is that it mirrored the attendance as for the Corporate Project Board. Table D.9 provides the percentage attendance overall.

D.1.2.4.4 Projects meeting corporate objectives

This was assessed by the corporate project board with project approval being dependent upon alignment with the Council's strategic objectives. A report was produced for the board at each meeting which provided a complete analysis of how all projects subject to this level of oversight were meeting the Council's strategic objectives. This is an application of portfolio management applied to projects and allowed for more balance across the stated objectives and ensured projects assisted in the achievement of the Council's strategy.

D.1.2.4.5 Project maturity

The project maturity of the organisation was measured during the review conducted by KPMG in June 2007 and determined as being 1.2; that is recognise projects and run them differently from business as usual which is generalised as aware. The assessment was conducted using an industry standard model and was completed by project managers within the Council.

In October 2010, I conducted another assessment using the P3M3 model although only project and portfolio management were tested. This was sent to project managers, senior managers and other staff who acted as project support. The assessment score was 2.65 overall for project management with two areas, financial management and organisational governance scoring over

3. Portfolio management scored less at 2.16. The overall score suggested that the organisation had its own portfolio process and centrally controlled project processes. Level 2 is defined as repeatable with level 3 defined. The figure below shows the P3M3 model in more detail.

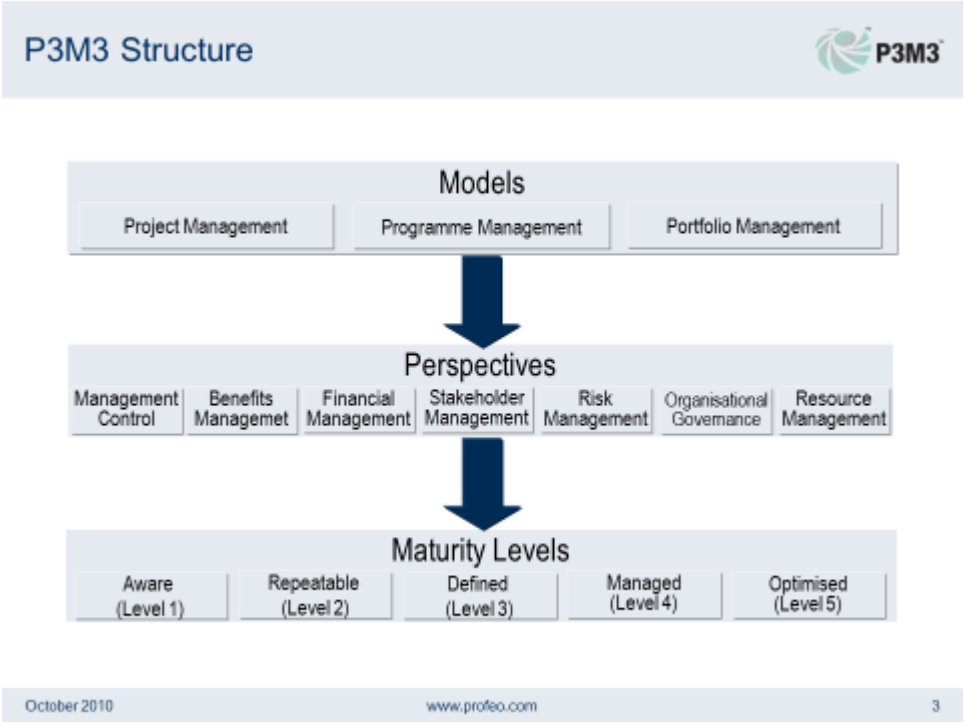


Figure D.5 P3M3 model. (adapted by Profeo from the OGC model).

It was intended to re-assess the Council in October 2013 however by this time I was no longer employed there, so the reassessment did not take place. I expected the maturity level to rise to around 3.2 based on my knowledge and observation.

D.1.2.4.6 Reputation of Portsmouth City Council

The local media during the early years of the new millennium ran many stories decrying the Council's inability to successfully deliver projects, and this was taken up by numerous correspondents to the letters page. Many of these stories and letters were factually inaccurate; however as detailed in Chapter 1 the Tower and Mary Rose projects gave the paper plenty of reason to query the competence of the Council in its project performance. This trend started to reverse in early 2009 and by the end of that year negative headlines were in the past. By 2011 even the letter writers had conceded that poor project performance was no longer worthy of their attention and writing skills. This situation has maintained throughout the intervening period to the writing of this thesis.

It is also worth noting that the balance of power of the political groups changed over the period of this intervention as shown in Figure D.6. This graphic has the four projects reviewed in Appendix A plotted onto the graph and it shows clearly the change in balance of power during the lifecycle of these difficult projects. It is also of note that the Liberal Democrats gained stronger control from 2008 when the intervention in this thesis was started. This growth contrasted with the national picture when the Liberal Democrats lost significantly in the General Election of 2010. In that election, the Liberal Democrat sitting Member of Parliament for Portsmouth South increased his majority which was against the tide throughout the rest of the country. Although the political composition of the Council is not subject to a single variable, the reputation of the Council was enhanced due to the improvement in project performance which impacted the electability of party candidates due to a perception of financial prudence.

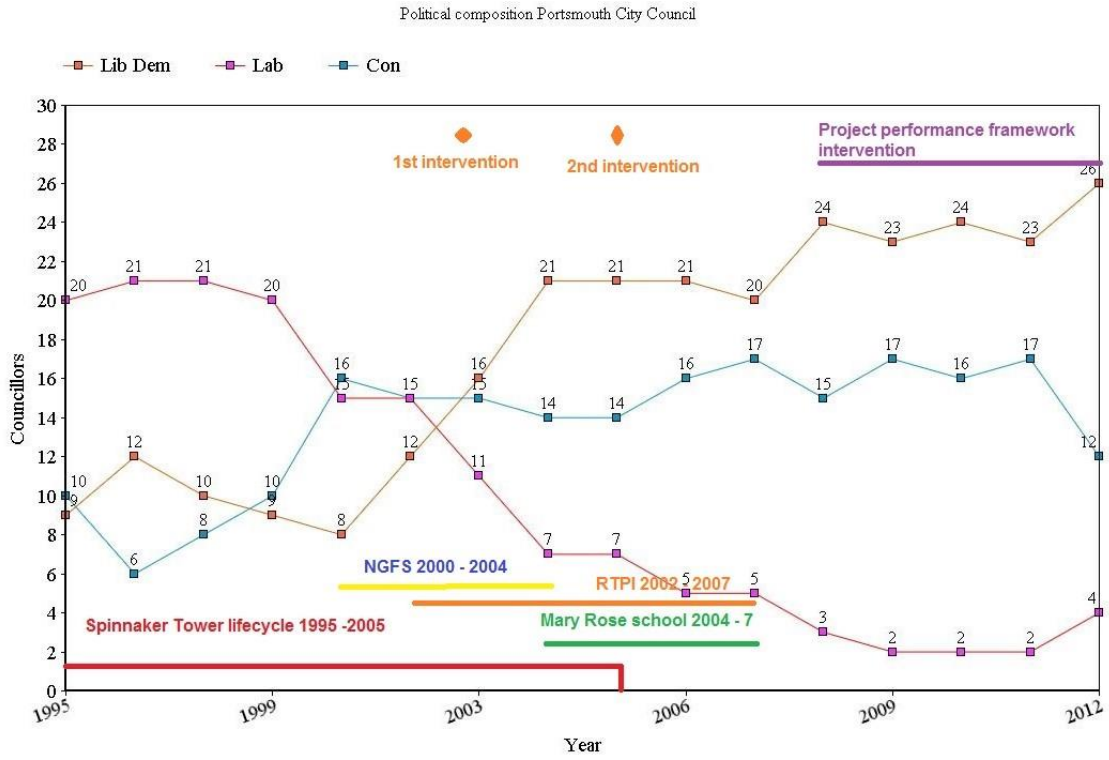


Figure D.6 Political composition of Portsmouth City Council 1995 – 2012 annotated with project details. (Author's work)

There has been an absence of bad news stories concerning the Council's projects up to the time of writing this in January 2018 in the local media, despite element 1, the portfolio process, being dismantled following the change of administration in May 2014. This means that currently there is no formal peer review or review by the corporate project board. No one inherited my role of providing advice and guidance to project managers especially in the start-up of projects, an area which I felt to be vitally important to improving project performance. Throughout the time of the intervention around 400 staff attended one or more of the project workshops and were exposed to active learning and the concept of project purpose being to achieve benefits not simply an output. It is not unreasonable to suggest that many staff have applied this new way of thinking about projects and this has assisted in the continuance of good project performance.

D.1.2.4.7 Audit Commission review

The Council became subject to annual review by the Audit Commission following the enquiries into the Spinnaker Tower project as stated in Chapter 1. In 2007 the Audit Commission accepted the KPMG review as being sufficient for their purposes. In October 2008 and 2009 further reviews were conducted which involved interviews with members and staff, review of the corporate processes and documentary evidence. From this an assessment was made of our status and a direction of travel indicator provided.

The 2008 review was encouraging with the auditor stating good progress was being made with a positive direction of travel. In 2009 the auditor determined that we were sufficiently advanced that annual reviews were no longer required. This was a significant achievement and indicated the improvement in project performance and that we were moving forward in a positive direction. This also provided external rigorous validation of the success of the approach taken. It should be noted that both contract management and performance management continued to be under review until the Audit Commission was scrapped after the 2010 general election.

Appendix E Reflection questionnaire (Kember et al., (2000)

Reflection Questionnaire

Please fill in the appropriate circle to indicate your level of agreement with statements about your actions and thinking in this course.

A—definitely agree
B—agree with reservation
C—only to be used if a definite answer is not possible
D—disagree with reservation
E—definitely disagree

Habitual Action

1. When I am working on some activities, I can do them without thinking about what I am doing.
5. In this course we do things so many times that I started doing them without thinking about it.
9. As long as I can remember handout material for examinations, I do not have to think too much.
13. If I follow what the lecturer says, I do not have to think too much on this course.

Understanding

2. This course requires us to understand concepts taught by the lecturer.
6. To pass this course you need to understand the content.
10. I need to understand the material taught by the teacher in order to perform practical tasks.
14. In this course you have to continually think about the material you are being taught.

Reflection

3. I sometimes question the way others do something and try to think of a better way.
7. I like to think over what I have been doing and consider alternative ways of doing it.

11. I often reflect on my actions to see whether I could have improved on what I did.
15. I often re-appraise my experience so I can learn from it and improve for my next performance.

Critical Reflection

4. As a result of this course I have changed the way I look at myself.
8. This course has challenged some of my firmly held ideas.
12. As a result of this course I have changed my normal way of doing things.
16. During this course I discovered faults in what I had previously believed to be right.

Appendix F Form UPR 16 and Ethics approval

FORM UPR16

Research Ethics Review Checklist

Please include this completed form as an appendix to your thesis (see the Postgraduate Research Student Handbook for more information

Postgraduate Research Student (PGRS) Informa			**Student ID**	223310	
PGRS Name:	Paul Summers				
Department:	OSM, PBS	**First Supervisor**	Dr. Christine Welch		
Start Date: (or progression date for Prof Doc students)		**February 2009**			
Study Mode and Route	Part-time ☒	MPhil ☐	MD ☐		
	Full-time ☐	PhD ☒	Professional Doctorate ☐		

Title of Thesis:	A Systems Thinking approach to improving project performance explored within a United Kingdom unitary authority.
Thesis Word Count: (excluding ancillary data)	66061

If you are unsure about any of the following, please contact the local representative on your Faculty Ethics Committee for advice. Please note that it is your responsibility to follow the University's Ethics Policy and any relevant University, academic or professional guidelines in the conduct of your study

Although the Ethics Committee may have given your study a favourable opinion, the final responsibility for the ethical conduct of this work lies with the researcher(s).

UKRIO Finished Research Checklist: (If you would like to know more about the checklist, please see your Faculty or Departmental Ethics Committee rep or see the online version of the full checklist at: http://www.ukrio.org/what-we-do/code-of-practice-for-research/)	
a) Have all of your research and findings been reported accurately, honestly and within a reasonable time frame?	YES ☒ NO ☐
b) Have all contributions to knowledge been acknowledged?	YES ☒ NO ☐
c) Have you complied with all agreements relating to intellectual property, publication and authorship?	YES ☒ NO ☐
d) Has your research data been retained in a secure and accessible form and will it remain so for the required duration?	YES ☒ NO ☐
e) Does your research comply with all legal, ethical, and contractual requirements?	YES ☒ NO ☐

Candidate Statement:	
I have considered the ethical dimensions of the above named research project, and have successfully obtained the necessary ethical approval(s)	
Ethical review number(s) from Faculty Ethics Committee (or from NRES/SCREC):	E104A

If you have *not* submitted your work for ethical review, and/or you have answered 'No' to one or more of questions a) to e), please explain below why this is so:		
Signed *(PGRS)*:		**Date:** 21 January 2017

University of Portsmouth

Christine Welch <christine.welch@port.ac.uk>

Ethics application [updated] ref E104A - Paul Summers [C Welch]

1 message

Sharman Rogers <Sharman.Rogers@port.ac.uk> 19 January 2011 at 12:03
To: "Welch, Christine" <Christine.Welch@port.ac.uk>

Hi Christine

- Paul's updated application ref E104A has now been approved.

Best wishes

Sharman

>>> Christine Welch 1/17/2011 3:27 pm >>>
Hello Sharman

A list of the organizations, all local authorities, is attached.

kind regards
christine

>>> Sharman Rogers 10/01/2011 11:25 >>>
Hi Christine

Re Paul' application, the Committee have requested some further info on what organisations he intends to approach. Best wishes, Sharman

>>> Christine Welch 11/11/2010 12:12 pm >>>
Hello Sharman

Would you circulate this updated form to the Ethics Committee please. It is a supplement to the original form which was approved and reflects a widening of the sample population, as referred to in the original.

kind regards
Christine

Ethical Review Checklist – Staff and PhD researchers

This checklist should be completed by the researcher (PhD students to have DoS check) and sent to Sharman Rogers who will coordinate Ethics Committee scrutiny.

No primary data collection can be undertaken before the supervisor and/or Ethics Committee has given approval.

If, following review of this checklist, amendments to the proposals are agreed to be necessary, the researcher must provide Sharman with an amended version for scrutiny.

1. What are the objectives of the research project?
    1. To investigate the relationship between systems thinking and Portfolio, Programme and Project Management.
    2. To design and implement a conceptual framework that relates systems thinking and Portfolio, Programme and Project Management.
    3. To evaluate the conceptual framework and the effect of its implementation.

2. Does the research involve *NHS patients, resources or staff*? YES / <u>NO</u> (please circle)

    NO

    If YES, it is likely that full ethical review must be obtained from the NHS process before the research can start.

3. Do you intend to collect *primary data* from human subjects or data that are identifiable with individuals? (This includes, for example, questionnaires and interviews.) YES / NO

    YES questionnaires and interviews

If you do not intend to collect such primary data then please go to question 14.

If you do intend to collect such primary data then please respond to ALL the questions 4 through 13. If you feel a question does not apply then please respond with n/a (for not applicable).

4. What is the *purpose* of the primary data in the dissertation / research project?

1. Surveys to gain an understanding of the impact of systems thinking and how the interventions have been managed

2. Interviews with staff to assess staff views of the organisation

3. Interviews with staff to assess the impact and usefulness of a conceptual framework

5. What is/are the *survey population(s)*?

The survey population is expected to be staff that have experienced exposure to systems thinking, lean and other transformational methodologies used in local government. There will be a need to survey staff in other public organisations and the private sector for comparison purposes where the same methodologies have been used. The survey population for interviews will be senior and middle managers and staff in sample organisations to be determined.

6. How big is the *sample* for each of the survey populations and how was this sample arrived at?

From the methodologies used there are around 100 organisations that I may contact. I will request contact with 10 – 20 members of staff at each location from a requested list of 30.

I feel that this number will give a reasonable response without being too onerous on the organisations concerned.

7. How will respondents be *selected and recruited*?

A lead officer is identified in each of the published case studies and they will be the initial contact. These initial contacts will be asked to provide a list of possible respondents from among the staff using the methodologies and the new processes and services. A sample will be chosen at random from this list. This is an example of snowball sampling as stated in Seale, C. et al (eds) (2004) *Qualitative Research Practice* p 449.

If the lead contact is not the correct person they will be asked to refer me to the appropriate member of staff.

8. What steps are proposed to ensure that the requirements of *informed consent* will be met for those taking part in the research? If an Information Sheet for participants is to be used, please attach it to this form. If not, please explain how you will be able to demonstrate that informed consent has been gained from participants.

There will be a letter submitted as a cover page for the survey to explain the aim of the research and why I am undertaking the research, its purpose and how the data collected will be used. Interviewees will also receive this cover letter as well as a verbal explanation. All interviewees will be assured as to confidentiality and anonymity. In all cases consent of the participants will be obtained.

9. How will *data* be *collected* from each of the sample groups?

Web based survey and interview by face to face or phone with a limited number of subjects chosen from the survey return.

10. How will *data* be *stored* and what will happen to the data at the end of the research?

The responses and interviews will be stored until I finish the research and then all the data will be destroyed. The data is expected to be in electronic format and stored in a folder to which only I will have access. Any paper responses will be held in a secure cabinet.

11. How will ***confidentiality*** be assured for respondents?

In this research, the principal ethical issues which I needed to consider irrespective of the research method are:

1. Respecting intended and actual participants' rights to privacy;
2. Avoiding deceiving participants about why I am undertaking the research, its purpose and how the data collected will be used;
3. Maintaining my objectivity during the data collection, analysis and reporting stages;
4. Respecting assurances provided to organisations about the confidentiality of personal and sensitive data.
5. Respecting assurances given to organisations and individuals about their anonymity;
6. Considering the collective interests of participants in the way I use the data which they provide.

12. What steps are proposed to safeguard the *anonymity* of the respondents?

No reference to the personal data and all the surveys will be anonymous and the information will be coded and stored securely.

13. Are there any *risks* (physical or other, including reputational) *to respondents* that may result from taking part in this research? YES / NO (please circle).

If YES, please specify and state what measures are proposed to deal with these risks

No

14. Are there any *risks* (physical or other, including reputational) *to the researcher or to the University* that may result from conducting this research? YES / NO (please circle).

If YES, please specify and state what measures are proposed to manage these risks.[1]

No

15. Will any *data* be *obtained from a company or* other *organisation*. YES / NO (please circle) For example, information provided by an employer or its employees.

If NO, then please go to question 18.

Yes

16. What steps are proposed to ensure that the requirements of *informed consent* will be met for that organisation? How will *confidentiality* be assured for the organisation?

There will be a letter submitted as a cover page for any questionnaires to explain the aim of the research and why I am undertaking the research, its purpose and how the data collected will be used. All papers produced as result of this research will protect the confidentiality of the organisation.

Part of the discussions with the initial contacts will be to obtain any permissions to proceed.

17. Does the organisation have its own ethics procedure relating to the research you intend to carry out? YES / NO (please circle).

If YES, the University will require written evidence from the organisation that they have approved the research.

---

[1] Risk evaluation should take account of the broad liberty of expression provided by the principle of academic freedom. The university's conduct with respect to academic freedom is set out in section 9.2 of the Articles of Government and its commitment to academic freedom is in section 1.2 of the Strategic Plan 2004-2008.

No

18. Will the proposed research involve any of the following (please put a √ next to 'yes' or 'no'; consult your supervisor if you are unsure):

• Vulnerable groups (e.g. children)?	YES		NO	√
• Particularly sensitive topics?	YES		NO	√
• Access to respondents via 'gatekeepers'? For interviews of staff	YES	√	NO	
• Use of deception?	YES		NO	√
• Access to confidential personal data?	YES		NO	√
• Psychological stress, anxiety etc?	YES		NO	√
• Intrusive interventions?	YES		NO	√

The managers from the affected services will provide lists of possible interviewees who will then be selected randomly and their consent obtained before any interview or questionnaire completion takes place.

19. Are there any other ethical issues that may arise from the proposed research?

NO

Details of applicant

The member of staff undertaking the research should sign and date the application, and submit it directly to the Ethics Committee. However, where the researcher is a supervised PhD candidate, the signature of the Director of Studies is also required prior to this form being submitted.

	Name	Signature
Researcher	Paul Summers	
Director of Studies	Christine Welch	
Date	5 April 2010	

Approval by Ethics Committee

I/We grant Ethical Approval

FREC _____

Date _____

AMENDMENTS

If you need to make changes please ensure you have permission before the primary data collection. If there are major changes, fill in a new form if that will make it easier for everyone. If there are minor changes then fill in the amendments (next page) and get them signed before the primary data collection begins.

CHANGES TO ETHICS PERMISSION

VERSION: ____

Please describe the nature of the change and impact on ethics:

Please print the name of: I/We grant Ethical Approval

Researcher Signed:	_____	FREC (Signed)	_____
	_____		_____
Date	_____	Date	_____

(please cut and paste the next section, together with the heading at the top of this page, as many times as required)

VERSION: ____

Please describe the nature of the change and impact on ethics:

Portsmouth City Council
Crawley District Council
East Devon District Council
Glasgow Housing Association
Tees Valley Housing
Preston City Council
Aire Valley Homes Leeds
Stroud District Council
Stockport Metropolitan Borough Council
Central Otaga District Council
Flagship Housing Group
Neath Port Talbot County Borough Council
Blaenau Gwent County Borough Council
City of Edinburgh Council
Somerset County Council
Dudley Metroplitan Borough Council
Staffordshire County Council
West Sussex County Council
Windsor & Maidenhead
NHS Tayside
Advice UK
Stoke City Council
Plymouth NHS Trust
Nottingham City Council
Brunel University
Torridge District Council
Reading Borough Council
Derby City Council

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